Preliminary
Colonial Nesting Bird Survey
on the
Bureau of Land Management
Lewistown District: 1995

A Report to:

Bureau of Land Management

Lewistown District
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Submitted by

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ABSTRACT

A total of 165 lakes, reservoirs, ponds, and river reaches on 10 USGS quads were surveyed on the Lewistown District of the Bureau of Land Management between 1 June and 18 July 1995. Surveys of ponds, lakes, or streams were made by 1 or 2 individuals. Each survey took 5-240 person-minutes and consisted of a search of the wetland with binoculars and/or spotting scope for adult birds or nests. If adults were seen, an effort was made to determine 1) numbers present; and 2) breeding status. One Black Tern colony was found on Fifteenmile Lake. At Freezeout Lake, definite breeders included: Double-crested Cormorants (*Phalacrocorax auritus*), Black-necked Stilts (*Himantopus mexicanus*), Franklin's Gulls (*Larus pipixcan*), California Gulls (*Larus californicus*), Common Terns (*Sterna hirundo*), Forster's Terns (*Sterna forsteri*), and Black Terns (*Chlidonias niger*); White-faced Ibis (*Plegadis chihi*) and Black-crowned Night-Herons (*Nycticorax nycticorax*) were seen and are probably breeding. Historic breeding locations of Black-crowned Night-Herons, Black-necked Stilts, Common Terns, and Black Terns on Lewistown District lands were discovered following the field season, for which reports are contained herein.

The Missouri River was surveyed on June 10-18, 1995 from Fort Benton to Robinson Bridge (148 miles). One Great Blue Heron (*Ardea herodias*) colony was found on an island in the Missouri River. Sites identified as potential Piping Plover (*Charadrius melodus*) breeding sites (Kathy O'Connor, pers. comm) were examined; however, none were suitable at the water levels during the survey (27,000 - 34,000 cfs at Virgelle). In fact, all but one (Wolf Island) was under water. A single island just below Bird rapids appeared possibly suitable for Piping Plovers during the survey.

Additionally, locations of other Threatened, Endangered and Sensitive species observed during the surveys are reported. Species found at these sites include the Spiny Softshell (*Trionyx spiniferus*), Bald Eagle (*Haliaeetus leucocephalus*), Golden Eagle (*Aquila chrysaetos*), Burrowing Owl (*Speotyto cunicularia*), and Loggerhead Shrike (*Lanius ludovicianus*).

TABLE OF CONTENTS

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INTRODUCTION

Many colonial nesting waterbirds are considered species of special concern by various agencies and programs. The characteristic clumping of nests in a small area makes these species very susceptible to massive losses due to natural catastrophe, harvest, habitat alteration, and disturbance. Additionally, human-caused loss of wetlands has exacerbated their problems.

While many large colonies occur on USFWS Refuges and are relatively well known, smaller scattered colonies may actually have, in total, more individuals of some species. This is particularly true of the Common Tern (*Sterna hirundo*) and Black Tern (*Chlidonias niger*), a recent USFWS Candidate (C2) species. Franklin's Gull (*Larus pipixcan*) has declined >90% on BBS routes during the past 20 years and its breeding range is restricted to the northern Great Plains.

The U.S. Fish and Wildlife Service listed 2 Montana colonial nesting birds as candidate species: White-faced Ibis (*Plegadis chihi*) (C2) and Black Tern (C2); the Piping Plover (*Charadrius melodus*) (Threatened) and Least Tern (*Sterna antillarum*) (Endangered) are both loosely colonial nesters. The Montana Natural Heritage Program lists Clarke's Grebe (*Aechmophorus clarkii*), American White Pelican (*Pelecanus erythrorhynchos*), White-faced Ibis, Black-crowned Night-Heron (*Nycticorax nycticorax*), Black-necked Stilt (*Himantopus mexicanus*), Franklin's Gull, Caspian Tern (*Sterna caspia*), Common Tern, Forster's Tern (*Sterna forsteri*), Least Tern, and Black Tern as species of special concern in the state. All actually or potentially occur on the Lewistown District of BLM (LD-BLM).

METHODS AND MATERIALS

Historic locations of colonial nesting waterbirds through 1980 were summarized in notes and 1:125,000 scale maps by Larry Thompson; these were digitized and entered into an associated database. All reported breeding locations of Threatened, Endangered, and Sensitive (TES) species are in the Biological Conservation Data System (BCD) at the Montana Natural Heritage Program. Some species (*e.g.* most of the terns) are new to the TES list, therefore, we are still in the process of gathering existing data. We requested information regarding any additional locations from BLM personnel, but none were reported.

We surveyed the following: 1) the Missouri River from Fort Benton to the Highway 191 Bridge (148 miles); 2) a sample of marshes, ponds, lakes, and reservoirs across the district as described in the following paragraph; and 3) several additional wetlands en route to other locations.

Twelve relatively complete 1^{o} blocks of latitude and longitude (LL) are covered by the Lewistown District. Within each LL, one of the 64 quad maps was chosen (Figure 1). In the 48^{o} latitude row, the easternmost quad in the third from the north row was chosen; in the 47^{o} row the easternmost quad in the fifth from the north row was chosen. In the case of a map that had few BLM lands or few wetlands, a nearby quad was chosen. In some cases, so little BLM land occurred in a LL block that only 1 map (or none) had wetlands on BLM lands (Table 1).

Visual surveys were done between 1 June and 18 July 1995 for these fairly easily located species; time spent at each site varied from 5-240 minutes depending on the size of the site and the presence of birds. Locations, behavior suggesting breeding, numbers, and stage of development of young were recorded. For the Great Blue Heron (*Ardea herodias*) and Double-crested Cormorant (*Phalacrocorax auritus*), colony nesting locations were relatively easily observed and population readily determined from a distance using binoculars/spotting scope to minimize disturbance. For the White-faced Ibis, Black-crowned Night-Heron, California Gull, Franklin's Gull, Forster's Tern, and Black Tern, the nests were often hidden in dense vegetation; we searched for up to 1 hour for nests when we suspect their presence. If a nest was found, we considered breeding verified and ceased searching to minimize disturbance; if no nest was found we used behavioral clues (defensive behaviors, carrying food or nesting material, etc.) and historic presence to determine probable nesting. Numbers were estimated by observation of adults. Black-necked Stilts had cryptic nests and are sensitive to disturbance; if behavioral clues suggested nesting we searched for nests for 30 minutes. If a nest was found, we considered breeding verified and cease searching to minimize disturbance; if no nest was found we used behavioral clues (defensive behaviors, carrying food or nesting material, etc.) to determine probable nesting. Numbers were estimated by observation of adults.

Habitats of all located TES species were recorded; for marsh/pond/lake locations, habitat was be recorded for all surveyed locations whether TES species were located or not. Vegetative habitat was recorded on a basic level, such as cattail marsh, bulrush, willow thicket, or sedge meadow, with physical factors such as islands, colony distance from water, and size of the wetland also recorded. River flow data on days when the Missouri River was surveyed is also reported (Appendix 5). Non-target colonial nesters and other TES species encountered were also recorded and mapped.

Taxa are evaluated and ranked by the Heritage Program on the basis of their global (range-wide) status, and their state-wide status. These ranks are used to determine protection and data collection priorities, and are revised as new information becomes available. A scale of 1 (critically imperiled) to 5 (demonstrably secure) is used for these ranks, and each species is assigned the appropriate combination of global and state ranks. Example: common tern = G5 / S3 (i.e., species is demonstrably secure globally; in Montana is found within a restricted range).

Global and state ranks are assigned according to a standardized procedure used by all Natural Heritage Programs, and are defined below.

Global/State Rank		Definition (G = Range-wide; S = Montana)
G1	S1	Critically imperiled because of extreme rarity (5 or fewer occurrences, or very few remaining individuals) or because of some factor of its biology making it especially vulnerable to extinction.
G2	S2	Imperiled because of rarity (6 to 20 occurrences) or because of other factors demonstrably making it very vulnerable to extinction throughout its range.
G3	S3	Either very rare and local throughout its range, or found locally (even abundantly at some of its locations) in a restricted range, or vulnerable to extinction throughout its range because of other factors; in the range of 21 to 100 occurrences.
G4	S4	Apparently secure, though it may be quite rare in parts of its range, especially at the periphery.
G5	S5	Demonstrably secure, though it may be quite rare in parts of its range, especially at the periphery.

Other codes:

B A state rank modifier indicating breeding status for a migratory species. **Example: S1B,SZN** -- breeding occurrences for the species are ranked S1 (critically imperiled) in the state, nonbreeding occurrences are not ranked in the state.

NA state rank modifier indicating non-breeding status for a migratory species. **Example: S1B,SZN** -- breeding occurrences for the species are ranked S1 (critically imperiled) in the state, nonbreeding occurrences are not ranked in the state.

Z Ranking not applicable.

Table 1. Quad maps for lake, pond, marsh, and reservoir surveys.

LL	Quad Name	# Wetlands Surveyed	Dates	Remarks
48-106	Miller Coulee East	28 small reservoirs	17-18 July 1995	no land on normal position quad map
48-107	Papoose Hills	23 small wetlands	2-3 & 18 July 1995	
48-108	Hubert Hill	ca. 20 small wetlands	not visited	
48-109	Tule Lake	25 small wetlands	1 July 1995	
48-110	Saddle Butte	9 mid-large wetlands	5-6 June 1995	
48-111	Tiber Dam	river and areas on reservoir	5 June 1995	no land on normal position quad map; few wetlands in LL on BLM lands
47-107	White Horse Coulee	26 small wetlands	15-17 July 1995	land on normal position quad map out of Lewistown District
47-108	Weingart Place	10 tiny wetlands	13-14 July 1995	
47-109	Fergus NE	7 small wetlands	14 July 1995	
47-110				none: few, if any, wetlands on BLM land
47-111	Power	4 small wetlands	1 June 1995	only wetlands on BLM in LL
47-112	Freezeout Lake	several huge areas	1-2 June 1995	general area known; only wetlands on BLM in LL

RESULTS AND DISCUSSION

A total of 165 lakes, reservoirs, ponds, and river reaches on 10 USGS quads were surveyed on the Lewistown District of the Bureau of Land Management between 1 June and 18 July 1995 (Appendix 2). Current and historic colony locations, and numbers of breeding birds in each, are provided in Appendix 3. One Black Tern colony was found on Fifteenmile Lake. At Freezeout Lake definite breeders included: Double-crested Cormorants (*Phalacrocorax auritus*), Black-necked Stilts, Franklin's Gulls, California Gulls (*Larus californicus*), Common Terns, Forster's Terns and Black Terns; White-faced Ibis and Black-crowned Night-Herons were seen and are probably breeding. Colonial nesting birds were not found on other wetlands surveyed.

Historic records of several additional colonies of species of special concern on BLM lands were found following the field season. These included: one Black-necked Stilt colony; a known Black-crowned Night-Heron colony, and two probable colonies; seven Common Tern colonies; and a Black Tern nesting site (Appendix 3).

I in an effort to be able to extrapolate the results across the landscape, the survey covered limited areas thoroughly, rather that sporadically covering large wetland complexes. It was thought that some of the species (Black-crowned Night-Heron, Black-necked Stilt, Black Tern) would be found in some of the smaller wetlands, though the other species would probably be restricted to the larger complexes. This did not turn out to be the case. No colonial nesters were found in wetland areas smaller than 40 acres. Given the relatively small number of wetland complexes greater than 40 ac surveyed, the results could not be extrapolated. To obtain a better estimate of species and numbers currently on the LD-BLM, a follow-up survey concentrating on the largest wetland complexes and a sample of mid-sized areas down to 25 acres should be undertaken.

The Missouri River was surveyed on 10-18 June 1995 from Fort Benton to Robinson Bridge. One Great Blue Heron colony was found on an island in the Missouri River (Appendix 3). On other areas of the river, Great Blue Herons were only seen near the Judith River confluence and on USFWS Lands below Grand Island. It seems likely that colonies occur in both those areas, though they were not visible from the river; they could easily be found with an aerial survey in the fall, winter, or spring prior to leaf-out. Many historic Great Blue Heron colony sites are known (map, Appendix 3) but were not resurveyed.

Sites identified as potential Piping Plover breeding sites in 1994 (K. O'Connor, pers. comm.) were examined, however, none were suitable at the high water levels experienced during the survey (27,000 - 34,000 cfs at Virgelle; Appendix 5). In fact, all but one (Wolf Island) were under water. A single island location appeared suitable for Piping Plovers during our survey; it was located at the end of Bird Rapid (T23N R20E Section 10; Lat: 47^{o} 46' 49.1" Long: 109^{o} 09' 08.1"). Given the lack of suitable nesting islands for Piping Plovers during the early summer, it is likely that this section of the Missouri will not hold plovers. Other potential island nesting gulls and terns are very susceptible to nest mortality due to human disturbance, and would not be expected on this heavily used river.

Species accounts and maps for all the TES colonial nesting shore- and waterbirds breeding, or potentially breeding, on the Lewistown District are given below. These accounts cover the habitat used during the reproductive period, the phenology in Montana, notes on surveying, and the status of each species. Nearly all species can be identified using standard field guides (Robbins et al. 1983, National Geographic Society 1987, Peterson 1969); Clark's Grebe is not shown in Robbins et al. (1983) or pre-1986 editions of Peterson. Several excellent references are available for identifying the more difficult shorebirds, terns, and gulls in their many plumages (Harrison 1985, Grant 1986, Hayman et al. 1986, Malling and Larsson 1995).

Clark's Grebe (*Aechmophorus clarkii*)

Habitat: Little material is available describing the habitat of Clark's Grebe since it was considered conspecific with the Western Grebe (*A. occidentalis*) until 1985 (A.O.U. 1985). Information given here from prior to that year may refer to the closely related Western Grebe; it is believed that many of the ecological characteristics are similar between the two species (Storer and Nuechterlein 1992). It typically nests among tall plants growing in water on edge of large areas of open water (Harrison 1978). It has been reported breeding only at very large lakes and reservoirs in Montana.

Nesting sites are usually found in areas covered with emergent vegetation, often phragmites or cattails; however, at Lake Helena it has nested with Western Grebes on mats of aquatic plants lying on the surface in the middle of the lake (G. Holton). The nest is normally in water >25 cm deep, either on a floating or imbedded platform. Most nests are in colonies, with nests placed 2-4 m apart (summarized in Storer and Nuechterlein 1992)

Phenology in Montana: Extreme migration dates are as follows: 25 April 1993 at Freezeout Lake WMA (M. Schwitters) and 21 October 1995 at Somers (D. Casey).

Little information on timing of reproduction in Montana is available. A pair was building a nest on 16 May 1993 at Freezeout Lake and downy chicks were present there on 11 July 1993 (M. Schwitters). At Lake Helena, two pairs finished constructing nests between 3-10 July 1992; a large chick and two adults were present there on 10 October 1989 (G. Holton).

Surveying: Timing of surveys for this species is problematic. Nesting apparently occurs as early as mid-May and may begin as late as mid-July; probably no time period will catch all birds in all locations in all years. Perhaps the best time to survey would be July since that would catch early nesters and most late nesters. Adults and flightless young are usually easily observed in open water areas. Early in the survey period one should watch for multiple adults present, conspicuous breeding displays, and calling; following hatching, young are easily observed in open water either next to or riding on the backs of their parents. Only large lakes and reservoirs need to be surveyed, particularly those with breeding Western Grebes. Care must be take to correctly identify this problematic species.

Status: Clark's Grebe is little known in Montana due to the recent (A.O.U. 1985) split of the Western Grebe into two species; it has been reported to breed at Bowdoin NWR, Freezeout WMA, Canyon Ferry Reservoir, Lake Helena, and Ninepipe NWR (Montana Bird Distribution Database). There appear to be few in the state; however, until Western Grebe breeding areas are throughly checked, it is unclear as to numbers and locations.

Montana Natural Heritage Program rank: G5 S2S4B,SZN

American White Pelican (*Pelecanus erythrorhynchos*)

Habitat: American White Pelicans typically breed on islands or peninsulas in brackish or freshwater lakes, isolated from mammalian predators. All breeding colonies in Montana are in mid- to large lakes or reservoirs. Most are on islands, but one is on a peninsula with a predator-proof fence separating it from the mainland. All are in eastern Montana in prairie habitat. Nearly all types of shallow aquatic habitats are used by foraging birds, including lakes, reservoirs, ponds, marshes, and rivers (Evans and Knopf 1993).

White Pelicans nest on the ground in a slight depression or on a mound of earth and debris 24-36 inches across, 15-20 inches high (Terres 1980). Nests are usually on low, flat or gently sloping terrain; they are usually in open area, but often near vegetation, driftwood, or large rocks (Spendelow and Patton 1988). In Montana, nests are typically found in areas with little or no vegetation.

Phenology in Montana: Extreme migration dates are as follows: 28 March at Bowdoin NWR (Davis 1961) and 18 October at Ennis (Davis 1961). The normal migration periods near Bozeman are from April 14 - June 5 and July 4 - October 5; the spring peak is about May 25, while the fall peak is around August 20 (Skaar 1969).

Pelicans in Montana begin nesting in early to mid-May. By mid-July the oldest young are near fledging; however, a substantial number do not fledge for 2-6 additional weeks (Reichel, unpubl. data).

Surveying: Surveys should take place between 15 May and 10 August; outside this period, the pelicans may be migrating flocks or individuals. Even during this time, flightless young or nests should be observed to establish breeding; adults often feed far (50+ km) from the breeding colonies and many non-breeding birds are present during the summer in Montana. Incubating adults, nests, and flightless young are easily observed due to the typical lack of vegetation on breeding islands.

Given the conspicuous nature of White Pelicans, new breeding locations are rapidly found and reported. It does not appear that surveys are necessary for this species in Montana.

Status: At present (1996), only 4 confirmed breeding sites remain: Medicine Lake, Lake Bowdoin, Canyon Ferry WMA, and Arod (Eyraud) Lake. All populations are large, with nearly 1000 pairs or more per colony. The historic Alkali Lake colony did not have successful reproduction in 1993 due to low water levels which allowed cattle and coyote access to the island; it has not been used since. Large numbers of pelicans are present during the breeding season at Red Rock Lakes, Ennis Lake, Freezeout Lake, and sporadically along the entire length of the Missouri River above Fort Peck. Breeding at any of these sites may be possible in the future.

Although only four breeding colonies occur in Montana, the population is relatively high (6900 pairs) and the sites are secure (although water may not be).

Montana Natural Heritage Program rank: G3 S2B,SZN

Black-crowned Night-Heron (*Nycticorax nycticorax*)

Habitat: Throughout their range, Black-crowned Night-Heron colony sites tend to be on islands, in swamps, or over water, which may be related to predator avoidance (Davis 1993). Inland in North America, most colonies are located in large wetland complexes, typically with 1:1 ratio of open water and emergent vegetation (Davis 1993). Foraging habitat is typically in shallow vegetated edges of ponds, lakes, creeks, and marshes; in Wisconsin, birds may fly up to 24 km to feed (Hoefler 1979).

Nest sites are highly variable, occurring anywhere from ground level to 160 ft high in trees (Davis 1993). The substrate can be anything from box elder or willows to cattails. In trees, the nests can be near the trunk or distal on branches and either in the open or in dense foliage; in cattails, nests may be on floating vegetation supported by adjacent stalks (summarized in Davis 1993). The nest is composed of a platform of sticks, twigs, or reeds--usually whatever is available nearby. Cramp (1977) gave nest dimensions of 30-45 cm diameter and 20-30 cm height.

Phenology in Montana: Extreme migration dates in Montana are: 4 April 1995 at Medicine Lake NWR (T. Gutzke) and 14 November 1979 at Benton Lake (K. Dubois). Normal arrival date at Fort Peck is April 16 (Skaar et al. 1985).

No data is available on timing of reproduction in Montana. Both eggs and young were found June 7 in Wyoming (Johnsgard 1986). In Michigan, birds lay eggs throughout May (Nickell 1966), and in Alberta, egg laying begins in late April or in early May (Wolford and Boag 1971).

Surveying: Surveys should take place between 15 May and 31 July; outside this period, herons observed may be migrating flocks or individuals. Even during this time, flightless young or nests should be observed to establish breeding; adults may regularly feed 24 km from the breeding colony (Hoefler 1979). Additionally, young could fledge as early as mid-July. Little time should be spent in colonies just before or during the egg laying period, as disturbance may cause partial or complete desertion (Tremblay and Ellison 1979); at other times colonies may be visited as long as the number of visits is small and the length of each visit is kept short.

Birds may be hard to locate, as they most often feed from dusk until dawn; however, while feeding dependant young, adults may often feed during the day. At a suspected breeding site, surveys are most effective at dusk or dawn. At those times, any adults present will be active and the colony location may be found by watching where birds fly from at dusk, or to at dawn. Many colonies are near or mixed with colonies of other herons, Franklin's Gulls, or Double-crested Cormorants. Large marsh complexes in Montana which lack known Black-crowned Night-Heron colonies should be surveyed; known colonies should be regularly inventoried.

Status: BBS data show an increasing trend both for USFWS Region 6 (3.2%/year 1966-94, n.s.) and for the US and Canada (5.6%/year, 1966-94, $p>0.5$). Black-crowned Night-Herons are known to breed at 6 locations in Montana: Red Rock Lakes NWR, Lake Bowdoin NWR, Medicine Lake NWR, Freezeout Lake WMA, Hoss Reservoir (LD-BLM lands; Appendix 3), and Benton Lake NWR. They have been reported as possibly breeding at 5 specific locations: Tiber Reservoir near Stanford Park (H. Marble 5/14/1994), a MDT wetlands mitigation site at T29N, R13E, S21 (K. Eakin, 8/10/93), Lee Metcalf NWR (S. Browder,

6/8/92), Fight Reservoir (LD-BLM lands; Appendix 3), and Red Fox Reservoir (LD-BLM lands; Appendix 3). Additionally, several other possible breeding areas have been reported, , but lack specific location information.

Less than 1000 breeding pairs are known; however, there are likely additional colonies which have yet to be reported. Colony sizes seem to vary between years. The following numbers are known: Red Rock Lakes (1990: 100-125 nests; 1993: 12 nests); Bowdoin NWR (1986: 150 pairs; 1987: 300 pairs); Medicine Lake NWR (1994: 25 nests; 1995: 40 birds, 1 nest); Hoss Reservoir (1987: 50 birds, 4+ nests); Benton Lake NWR (15-40 nests).

Montana Natural Heritage Program rank: G5 S2S3B,SZN

White-faced Ibis (*Plegadis chihi*)

Habitat: In the Great Basin, White-faced Ibises primarily use stands of bulrush in large shallow wetland complexes for breeding; in Colorado cattails are also important (Ryder and Manry 1994). Trost (1989) reports that they also will use small willow areas. They typically feed in shallow water, covered with short emergent plants, and also use nearby irrigated croplands, meadows, and flooded agricultural areas (Ryder and Manry 1994).

Nests are typically spaced 0.5-10 m apart, with density often increasing toward the center of the colony (summarized in Ryder and Manry 1994). Nest structures are highly variable, and are typically composed of the dominant vegetation in the colony; outside nest diameter may range from 27-50 cm, and nests are 10-25 cm deep (Ryder and Manry 1994). Nests may be woven into emergent vegetation, made on a platform of bent over adjacent vegetation, or placed on more solid platform or on the ground (Ryder and Manry 1994).

Phenology in Montana: Extreme Montana dates migration are: 5 April 1964 at Three Forks (Skaar 1969) and August 1991 at Willow Creek Reservoir (J. Hartman). Typical spring migration periods: May 1-25. Departure dates are not well established (Skaar, no date).

Little data is published on the timing of reproduction in Montana. An adult was seen feeding a juvenile on 11 June 1994 at Benton Lake (J. Ellis). Apparently nesting is not highly synchronized; in Colorado, laying dates ranged from 9 May - 1 July, and in Utah from late April through mid-June (Ryder and Manry 1994). Clutch size is typically 3-4 (range of 2-7) (Trost 1989). The incubation period is 21-22 days, and normally only two young survive to fledging (Trost 1989). The young are semi-altricial and fledge after 28 days; birds do not breed until 2 years (Trost 1989, Ryder and Manry 1994).

Surveying: Surveys should take place between 1 June and 31 July; outside this period ibis observed may be migrating flocks or individuals. Even during this time, flightless young or nests should be observed to establish breeding; adults may regularly feed 5-25 miles from the breeding colony (Trost 1989). Additionally, young could fledge as early as mid-June (following a warm dry spring) or nesting may begin as late as early-July (when water levels are high). Breeding colonies may be located by observing birds flying to or from likely nesting areas following feeding. Little time should be spent in colonies, as young may leave the nest to escape intruders resulting in drowning or hypothermia. Colonies are very susceptible to disturbance and entering colonies during nest-site selection, nest-building, and incubation periods may cause partial or complete desertion (Ryder and Manry 1994). Large marsh complexes in Montana lacking known White-face Ibis colonies should be surveyed; known colonies should be regularly inventoried.

Status: First known breeding in Montana was in 1970 at Bowdoin NWR (Skaar 1975). BBS data for the U.S. and Canada show a significant increase of 20.3%/yr from 1966-1994. Known breeding sites include Bowdoin NWR, Freezeout Lake WMA, Benton Lake NWR, and Red Rock Lakes NWR; they are also reported breeding at two locations in south-central Montana (Montana Bird Distribution Committee 1996). Forty-five pairs nested at Bowdoin NWR in 1987; 15 pairs nested at Benton Lake NWR in 1981; 15 pairs nested at Red Rock Lakes NWR in 1993. Numbers breeding in Montana vary greatly between years.

Montana Natural Heritage Program rank: G5 S1B,SZN

Black-necked Stilt (*Himantopus mexicanus*)

Habitat: Black-necked Stilts nest in medium to large wetland complexes of open marshes and meadows, often in alkali areas in Montana. The nest is typically found near the edge of the water; its bottom may be wet. The nest is a simple scrape located on the ground, often in a somewhat or completely open area; it may also be placed on a plant tussock in shallow water.

Phenology in Montana: Extreme migration dates in Montana are: 12 April 1985 at Benton Lake NWR (K. Dubois) and 9 September 1995 at Helena Reregulating Reservoir (G. Holton).

Little has been written about the timing of reproduction in stilts in Montana. A nest with eggs was found on Benton Lake NWR on 14 May 1977. Incubating birds were present on Freezeout Lake WMA on 1-2 June 1995; a chick was present there on 13 June 1993.

Surveying: Surveys should take place between 25 May and 15 July; outside this period, stilts observed may be migrating flocks or individuals. Colonies are typically loose and small; a few short visits with minimal disturbance are unlikely to cause desertion or mortality. Adult birds are relatively easy to locate while they feed in shallow open water or low emergent vegetation near the shoreline. If they are nesting or have young present, they will act quite aggressively toward intruders, flying over and calling loudly. Young are also fairly easily seen feeding near the adults.

Large marsh complexes in Montana lacking known Black-necked Stilt colonies should be surveyed; special attention should be given to wetlands in alkali areas, which seem to be favored by stilts in Montana. Known colonies should be regularly inventoried.

Status: Black-necked Stilts have been reported breeding at 5 locations in Montana: Nice Pond on BLM lands (2 pairs on 12 June 1987); Lake Bowdoin NWR; Freezeout Lake WMA (1995: 27 pairs, 7 nests found), Benton Lake NWR (1977: 4 broods [first year of nesting]; 1984 22 birds present; 1988: 25 nests); and Big Lake in Stillwater County (in 1917-18). They have been reported as possibly breeding at two locations: Halfbreed Lake NWR (T. McEneaney 5/95) and a pond 5 miles north of Cascade (S. Toubman, 7/9/95). Additionally, several other possible breeding areas which lacking specific location information have been reported. Less than 500 breeding pairs are known; however, there are likely to be additional colonies which have yet to be reported. Colony sizes seem to vary between years; for 60 years prior to 1977, no breeding was reported. Montana is at the northern border of the range. It may not be able to maintain populations here indefinitely due to weather fluctuations.

BBS reports a slight non-significant decrease of 0.5%/year during 1966-94. First reported breeding in Montana in 1917-18 at Big Lake in Stillwater County (Saunders 1921), but was not reported again until numerous breeding during an invasion in 1977 (Skaar et al. 1985).

Montana Natural Heritage Program rank: G5 S2B,SZN

Piping Plover (*Charadrius melodus*)

Habitat: During the breeding season in Montana, birds use wide gravelly beaches, sandy beaches, and alkali/gravel beaches (Haig 1992, Montana Piping Plover Recovery Committee 1994, 1995). Nest sites typically have the following characteristics: open sand, gravel, or rarely alkali substrates; on an elevated area; often near an elevated object or isolated vegetation clump; and away from the water (Montana Piping Plover Recovery Committee 1994, 1995; Haig 1992). Finished nest cups, frequently lined with small pebbles, are shallow scrapes approximately 2 cm deep and 6 cm in diameter dug into the substrate (Haig 1992; Montana Piping Plover Recovery Committee 1994, 1995; USFWS 1994).

Phenology in Montana: Extreme early migration date in Montana is 27 April 1993 at Fort Peck (Skaar et al. 1985). Departure dates are not well known. The normal arrival date at Fort Peck is April 27 (Skaar et al. 1985). It is rarely seen on migration, but most commonly just east of the Rocky Mountains (Montana Bird Distribution Committee 1996).

Nesting dates in Montana indicate egg laying from 3 May to 6 July; nesting is typically later along rivers and late dates may represent renesting attempts (Montana Piping Plover Recovery Committee 1994, 1995). This indicates that young are present from as early as June 1 through fledging as late as mid-August.

Surveying: In 1991 and 1996, there were International Piping Plover Breeding Censuses. The 1996 census takes place on 1-16 June (1-9 June preferably) and is designed to get breeding adult numbers. Later censuses could determine reproductive success but would miss birds which had lost nests and left the breeding area. Birds are relatively easily found due to their feeding in areas with very short or no vegetation along the water's edge (however, birds are very small and could be missed if the observer is not nearby). There is a standard form for this census.

For general censuses, timing could be extended to 15 July; this may miss birds that were unsuccessful breeders. If birds are found, they should be observed to determine if there is a pair present. If an adult displays defensive behavior or gives an alarm call, a nest search can be made; it should be of short duration in order to eliminate the possibility of egg or chick loss (<10 minutes). Many lakes and reservoirs with potentially suitable habitat have not been surveyed. The most likely undiscovered sites are along the Highline between Bowdoin NWR and Alkali Lake (Pondera Co.)

Status: Breeds very locally in Pondera County, near Bowdoin and Nelson Reservoir, along Fort Peck and the lower Missouri River, and in Sheridan County (Montana Piping Plover Recovery Committee 1995). Piping Plovers are know to have bred in 34 areas since 1985 (Montana Piping Plover Recovery Committee 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995). The known number of adults present in Montana has ranged from 46 (probably many not found) in 1986 to a high of 328 in 1991; the 1991 survey was the most comprehensive and probably represents the best population estimate for Montana (Montana Piping Plover Recovery Committee 1988-1995).

Montana Natural Heritage Program rank: G3 S2B,SZN

Franklin's Gull (*Larus pipixcan*)

Habitat: Franklin's Gull breeds in large marsh complexes (Burger and Gochfeld 1994); this is certainly true of the known breeding locations in Montana. It always nests over water in bulrushes or other emergent vegetation; typical water depth is 30-60 cm. Areas with low vegetation density or the edges of denser vegetation are preferred (summarized in Burger and Gochfeld 1994). Specific colony locations within a marsh change between years due to variations in vegetation density and water level (Burger and Gochfeld 1994). During migration near Bozeman, it is as often seen feeding over fields as over lakes (Skaar 1969). At Freezeout Lake, nest density ranged from 5-111 nests per 0.1 acre plot (Rothweiler 1960). Nests are typically 0.6-2.5 m apart (Burger 1974). They are made of piled vegetation, usually whatever is closest; material is added throughout the breeding period up until fledging. At Benton Lake NWR, nests averaged 58 cm early in incubation; additional material increases the nest size throughout the nesting period (Berger and Gochfeld 1994).

Phenology in Montana: Extreme migration dates in Montana are: 11 April 1978 at Lee Metcalf NWR (S. Reel) and 11 October 1955 at Medicine Lake NWR (Davis 1961). Normal arrival date at Fort Peck is April 20; at Bozeman it is May 15 (Skaar et al. 1985).

Surveying: Surveys should take place between 25 May and 31 July; outside this period gulls observed may be migrating flocks or individuals. Adults are active throughout the day and are easily observed flying and feeding. During surveys, flightless young, adults carrying nesting material, or nests should be observed to establish breeding; adults may regularly feed 25 km from the breeding colony and failed breeders disperse quickly (Burger and Gochfeld 1994). Little time should be spent in colonies, particularly just before egg laying, as disturbance may cause partial or complete desertion; after hatching chicks may become lost, killed or drown if disturbed. Colonies may be visited during mid- to late incubation as long as the number of visits is small and the length of each visit is kept under 2 hours (Burger and Gochfeld 1994).

Status: There is very localized breeding in Montana, both along the Highline and in the southwest. Approximately 34,000 breeding pairs are known from the five breeding locations in the state. Colony sizes seem to vary between years. The following numbers of breeding pairs are known from 1994-95: Red Rock Lakes (200+); Lake Bowdoin NWR (20; previously to 7500); Medicine Lake NWR (50-500); Benton Lake NWR (16,000) Freezeout Lake WMA (18,000). Additionally, several other possible breeding areas that lack specific location information have been reported (Montana Bird Distribution Committee 1996).

Most colonies in Montana are stable or increasing, yet Bowdoin and Medicine Lake colonies decreased due to low or no water in much of the area (Burger and Gochfeld 1994). However, BBS data indicate a 7.4%/year decline from 1968-91 (Knopf 1994), a trend that is not consistent with reports from colonies (Burger and Gochfeld 1994).

Montana Natural Heritage Program rank: G5 S3B,SZN

Caspian Tern (*Sterna caspia*)

Habitat: In Montana, the Caspian Tern is found breeding on large lakes, reservoirs, and perhaps rivers. Nest sites are typically on rocky or sandy islands; in other areas, beaches are used occasionally (Johnsgard 1979, Godfrey 1986). They may nest singly or, more commonly, in colonies of up to several thousand pairs (5000+ at Sand Island, Washington). Nests are simple scrapes in the soil or sand, sometimes lined with grass (Johnsgard 1979, Godfrey 1986).

Phenology in Montana: Extreme arrival and departure migration dates reported from Montana are 16 April 1994 at Tiber Dam (H. Marble) and 8 October 1985 near Ravalli (C. Campbell). Normal arrival and departure dates are not well known.

Timing of reproduction in Montana is not reported in the literature. There is a report of active nests on 28 May 1991 at Shale Island, Fort Pack Reservoir (Mackey and Spence) and of incubating adults on 14 May 1994 at Freezeout Lake WMA (M. Schwitters). Young were reported on 9 July 1992 at Canyon Ferry WMA (D. Flath).

Surveying: Surveying should take place between 1 June and 15 July until the timing of reproduction in Montana is better known; outside this period, terns may be migrating flocks or individuals. Even during this time, flightless young or nests should be observed to establish breeding; adults may feed far from the breeding colonies, and failed breeders soon leave nesting sites. Incubating adults, nests, and flightless young are easily observed due to the typical lack of vegetation on breeding islands. The number of visits and time spent in colonies should be minimized.

Status: Caspian Terns breed very locally in northern and central Montana. Based on breeding distribution maps, only about 10 breeding locations of Caspian Terns are expected for Montana (Montana Bird Distribution Committee 1996). Known sites include Bowdoin NWR, two islands on Fort Peck Reservoir, Medicine Lake NWR, Ninepine NWR, Freezeout Lake WMA, and Canyon Ferry WMA. One additional location where possible breeding has been reported is Tiber Reservoir (1994, H. Marble). All colonies appear small. Bowdoin NWR reported 11 nests in 1992; Medicine Lake (1 nest 1990; does not census); Fort Peck including Big Island (30 nests on 4 July 1987) and Shale Island (25 nests on 28 May 1991); and Canyon Ferry WMA (25 nests in 1991).

The population trend is unknown in Montana or regionally. BBS reports a non-significant increase of 4.4%/year in the U.S. and Canada.

Montana Natural Heritage Program rank: G5 S2B,SZN

Common Tern (*Sterna hirundo*)

Habitat: In Montana, nearly all colonies are found on islands. In the Northern Rockies and Great Plains, islands in large lakes or reservoirs are favored breeding grounds (Johnsgard 1979, 1986). In the Great Plains, Johnsgard (1979) reports that most nesting occurs on sparsely vegetated areas, often near vegetation or other objects. However, in Canada, they also occasionally nest in marshes, in similar situations as do Forster's Terns (Godfrey 1986). They may also use sandy beaches (Godfrey 1986). Nests are simple scrapes in the soil or sand, sometimes lined with grass, pebbles, or twigs (Johnsgard 1979, Godfrey 1986).

Phenology in Montana: Extreme arrival and departure migration dates reported from Montana are 23 April 1993 at Freezeout WMA (M. Schwitters) and 3 October 1960 in Madison County (Skaar 1969). Normal migration periods in Bozeman are May 9-25 and September 5-25, with peaks on May 9 and September 15 (Skaar). Normal arrival date at Fort Peck is April 30; at Billings it is May 9 (Skaar et al. 1985).

Common Terns have been reported as being on nests from 1 June through 15 July in Montana. Flightless young were reported from Lone Tree Spreader Dikes on 30 July 1987 (D. Prellwitz). In North Dakota, egg dates range from 8 June to 28 July (Johnsgard 1986).

Surveying: Surveys should take place between 6 June and 5 August; outside this period terns observed may be migrating flocks or individuals. Even during this time, flightless young or nests should be observed to establish breeding; adults may feed far from the breeding colonies, and failed breeders soon leave nesting sites. Incubating adults, nests, and flightless young are easily observed due to the typical lack of vegetation on breeding islands. Note that young may leave the nest by two days of age (Johnsgard 1979). The number of visits and time spent in colonies should be minimized.

Status: Common Terns breed locally in northern Montana, mostly east of the Continental Divide (Montana Bird Distribution Committee 1996). Perhaps 20-50 breeding occurrences of Common Terns are expected for Montana on the basis of breeding distribution maps and currently known specific occurrences (Montana Bird Distribution Committee 1996). Known sites include Benton Lake NWR, Bowdoin NWR, Flat Reservoir (BLM), Freezeout Lake WMA, one island on Fort Peck Reservoir, Halfway Lake on Sands WPA, Lone Tree Spreader Dikes (BLM), Medicine Lake NWR, Nelson Reservoir (BoR), Nice Pond (BLM), PR-313 Reservoir (BLM), Spencer Reservoir (BLM), wetland at T27N R32E Sect 30 SENW (BLM), and Whitewater Lake (BLM). One additional location where possible breeding has been reported is Tiber Reservoir (1994, H. Marble). Known colony sizes range from 2 to 236, with most under 50.

The population trend is unknown in Montana; given regional trends it is probably down. BBS reports a significant decline of 11.7%/year in USFWS Region 6, and a non-significant decline of 0.7%/year in the U.S. and Canada.

Montana Natural Heritage Program rank: G5 S3B,SZN

Forster's Tern (*Sterna forsteri*)

Habitat: Primarily a bird of large marsh complexes, it is also occasionally found along marshy borders of lakes and reservoirs in Montana. This is also true in South Dakota, where is it reported to avoid small marshes (Johnsgard 1979).

Nests are most frequently found on mats of floating vegetation or muskrat houses; in these situations, the nest is lined with grass and reeds (Johnsgard 1979, Godfrey 1986). Occasionally Forester Terns will nest on islands or beaches like Common Terns, using a lined depression in the mud or sand (Johnsgard 1979, Ehrlich et al. 1988). Occasionally nests will be very close together on a favored site, such as a muskrat house, where up to five nests have been reported together (Johnsgard 1979).

Phenology in Montana: Extreme arrival and departure migration dates reported from Montana are 28 April 1993 at Freezeout Lake (M. Schwitters) and 27 September 1958 in Ennis (Skaar 1969). Normal migration periods in Bozeman are May 7-12 and September 15-19 (Skaar 1969). Normal arrival date in Missoula is 14 May; in Billings, it is 24 May (Skaar et al. 1985).

Extremely little information is available on timing of reproduction of Forster's Tern in Montana. At Freezeout Lake WMA, birds were reported on nests on 1-2 June 1995 (M. Schwitters). In North Dakota, newly hatched young have been reported in late June and in early July (Johnsgard 1979).

Surveying: Surveys should take place between 1 June and 15 July until timing of reproduction is more well known; outside this period terns observed may be migrating flocks or individuals. Adults are active throughout the day and are easily observed flying and feeding. During surveys, flightless young, adults carrying food to a likely nesting site, or nests should be observed to establish breeding; adults may regularly feed away from the breeding colony and failed breeders probably disperse quickly. Little time should be spent in colonies, particularly just before egg laying, as disturbance may cause partial or complete desertion, or after hatching since chicks may become lost, killed or drown; colonies may be visited during mid- to late incubation as long as the number of visits is small and the length of each visit is kept short. Large wetland complexes in Montana, that lack known Forster's Tern colonies, should be surveyed; known colonies should be regularly inventoried.

Status: Forster's Tern breeds locally in northern Montana, mostly east of the Continental Divide (Montana Bird Distribution Committee 1996). Based on breeding distribution maps and known occurrences, only about 10 breeding occurrences of Forster's Terns are expected for Montana (Montana Bird Distribution Committee 1996). Known sites include Benton Lake NWR, Medicine Lake NWR, Ninepine NWR, Red Rock Lakes NWR, Freezeout Lake WMA, and Canyon Ferry WMA. Probably <500 pairs breed in Montana in most years. Reported colony sizes range from 8-56.

The population trend is unknown in Montana. BBS reports a significant increase of 1.5%/year in USFWS Region 6 and 4.9%/year in the U.S. and Canada from 1966-94.

Montana Natural Heritage Program rank: G5 S2B,SZN

Black Tern (*Chlidonias niger*)

Habitat: Black Terns are typically found nesting in shallow freshwater marshes with emergent vegetation. These include potholes, lakes, ponds, reservoirs, and occasionally islands or river edges, both in a prairie and forested habitat matrix (Dunn and Agro 1995). In the prairies of North Dakota, 72% of nests were in semi-permanent ponds (Stewart and Kantrud 1984). Black Terns prefer marshes of 50+ ac, and the smallest reported in the literature is just over 10 ac (Provost 1947, Brown and Dinsmore 1986).

Nesting sites are usually in areas with 25-75% of the surface covered with emergent vegetation; vegetation is usually cattail or bulrush, but may be burreed, sedge, reed canary grass, horsetail, rush, hairgrass, or spatterdock. Water depth is typically 0.5-1.2 m. Nests are typically within 0.5-2 m of open water and are not usually near shore. Emergent vegetation is normally less than 0.5 m tall during nest building, but may grow to greater than 1 m by the time of hatching. Nests are usually built on floating dead marsh vegetation, detached root masses, muskrat feeding platforms, or boards, but may also be on solid substrates (summarized in Dunn and Agro 1995). Nests are typically 1-3 inches high and 4-10 inches in diameter (summarized in Dunn and Agro 1995).

Phenology in Montana: Extreme migration dates known from Montana are 8 May (Hand 1969) and 12 September 1958 (Davis 1961). In the Bozeman area, normal migration periods are May 16-June 1 and September 10-19; spring peak is May 10, but there is no apparent fall peak (Skaar 1969). Western Montana migration has median arrival and departure dates of 21 May and 5 August (Hand 1969).

Little information has been published relating to timing of reproductive activities in Montana. Black Terns apparently nest in June (Davis 1961). Eggs in nests were reported on 22 June 1918 at Big Lake, Stillwater County (Saunders 1921). A recently fledged bird was seen among 6-10 adults at Swan River NWR on 23 July 1994 (J.D. Reichel).

Surveying: Surveys should take place between 1 June and 31 July; outside this period, terns are likely to be migrating flocks or individuals or local birds not yet at their final destination. Even within this period, care should be taken early in the season to be sure birds have started nest-building. Prior to dispersal to specific breeding sites, birds may congregate at favored feeding locations on the breeding grounds (Dunn and Agro 1995).

If birds are present, they are easily detected throughout the day flying and feeding. They apparently do not travel long distances to feed, though they may regularly travel up to 4 km (Chapman Mosher 1986). Nests are most easily found using a boat and traveling in open water at the edge of emergent vegetation. Little time should be spent in the nesting colony so as to prevent mortality to young. Besides finding nests, nesting can be confirmed by seeing adults carrying food to the nest site or feeding recently fledged young.

Regional surveys can be of two types: 1) stratified sample, which is preferred in areas with extensive breeding habitat (e.g. Stewart and Kantrud 1972); or 2) standardized surveys of all suitable wetlands, preferred when habitat is limited (e.g., Mossman 1981, Novak 1990). Given the apparent preference of Black Terns in Montana for wetlands or wetland complexes greater than 25 acres, surveys of all suitable wetlands would be preferred in most regions in Montana.

Status: Black Tern breeding colonies are localized with relatively few populations, and have low numbers of individuals per colony. BBS trend for USFWS Region 6, -4.6%/yr (1966-94), is a significant downward trend, however for the more recent period (1980-94) the trend is up 3.6%/year. In Montana, several hundred bred in Red Rock Lakes NWR in the 1970s (T. McEneaney); they are no longer present.

Montana Natural Heritage Program rank: G4 S3B,SZN

RECOMMENDATIONS

Surveys, Monitoring and Research

1) All incidental sightings and specific surveys of breeding or possibly breeding colonial nesting wetland birds should be recorded and maintained for future area biologist's use. Ideally, copies should be forwarded to the Natural Heritage Program, which maintains a state-wide database (BCD) on these species. These can be used for land use planning and can also provide a backup in case of loss of originals or personnel turnover. Further, the BCD provides a statewide database of locations, productivity, and general landscape associations. At a minimum, date, species, approximate numbers, precise location, and evidence of breeding should be recorded; a copy of a reporting form is included in Appendix 1, although any format with the required information is acceptable.

2) Due to the time constraints and the relatively local, concentrated nature of the 1995 survey, it should not be regarded as a definitive index of all the colonial nesting wetland birds or their distribution on the LD-BLM. It is recommended that additional surveys be conducted, concentrating on the largest wetlands on the District and the known historic sites which were not resurveyed in 1995 (Appendix 3).

3) Following additional surveys, a monitoring program should be initiated, with resurveying of known current and historic sites at least every 5 years. Resurveying should be done by visiting a colony twice in a single year: once in late spring to determine if breeding took place, and once in mid-summer to check if reproduction was successful. Ideal dates are species- and location-specific, and may vary with annual weather conditions and water level.

4) Life history and ecology of the wetland colonial nesting birds in Montana is poorly known for most species. Long-term monitoring will provide information on timing of and habitat requirements needed for successful breeding.

5) It is recommended that any wetland areas over 20 acres, which are under consideration for mining, road building, grazing lease renewal, or other large-scale potentially habitat altering activities, be surveyed thoroughly for colonial nesting bird presence and breeding activity.

Management

With an increasing number of colonial nesting wetland bird species on the decline, it seems reasonable to pro-actively manage habitat to support them. While not all ways of preserving these species are currently known, several management activities could certainly negatively impact them. Without adequate breeding areas, these species cannot survive, and the type of wetland area used is often species-specific.

a) All colonially nesting wetland birds are sensitive to disturbance during much or all of the breeding season; therefore, disturbance should be minimized during the breeding season. This is often best done by limiting access, and certainly not by improving access or by encouraging use of the area for unrelated activities.

b) Cattle trampling may severely impact shore nesting species such as Black-necked Stilts or Piping Plovers; if possible, grazing use should be timed to follow the nesting season.

c) Dramatic changes in water level may significantly impact reproduction. In most species a large rise in water level following nesting will destroy many nests. Conversely, a large drop in level may result in connecting nesting islands to the mainland or draining breeding marshes of such species as Franklins Gulls and exposing the colonies to vastly increased predation.

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APPENDIX 1.

DATA SHEETS USED FOR

COLONIAL NESTING WATERBIRD

SURVEYS AND OBSERVATIONS

Appendix 1. Data sheets used for colonial nesting waterbird surveys and observations.

INSERT DATA SHEETS HERE; Discard this sheet.

APPENDIX 2.

CHARACTERISTICS OF

1995 WETLAND SURVEY SITES

ON THE

BLM LEWISTOWN DISTRICT

Appendix 2. Characteristics of 1995 wetland survey sites on each 7 ½ minute USGS quad map [sites are numbered as in Figures].

Site	Date	Size	Origin	Desc.	Depth	pH	Herps	Emergent Vegetation
Miller Coulee East								
pond 272	7/17	20	man	temp	<1	5.0	pstr	polygonum, rush, sagebrush, cattail
pond 78	7/18	2	man	perm	1-2			rush, grass, polygonum
pond 79	7/18	1	man	temp	1-2			rush, foxtail barley. grass
pond 80	7/18	3	man	perm	>2			rush, polygonum, sedge, bulrush
pond 81	7/18	1	man	temp	1-2			rush, polygonum, foxtail barley
pond 82	7/18	1	man	perm	1-2			rush, foxtail barley, polygonum
pond 83	7/18	1	man	temp	1-2			none
pond 84	7/18	1	man	temp	<1			none
pond 85	7/18	1	man	temp	1-2			foxtail barley, polygonum, sedge
pond 86	7/17	1	man	perm				grass, sedge, rush
pond 87	7/17	2	man	temp	1-2			polygonum, foxtail barley, rush
pond 89	7/17	8	man	temp	<1	4.5	pstr	polygonum, rush, bulrush
pond 91	7/17	1	man	temp	1-2			rush, cattail, bulrush
pond 92	7/17	1	man	temp		4.5		rush, bulrush, grass, polygonum
pond 93	7/17	1	man	temp	<1			sagebrush, bunchgrass
pond 95	7/18	13	man	temp	<1		none	foxtail barley, polygonum, sedge
pond 97	7/18	15	man	perm		5.5	rapi, thra	bulrush, polygonum, sedge, foxtail barley, cattail
pond 100	7/18	1	man	perm	1-2			grass, sedge, polygonum
pond 101	7/18	3	man	perm	1-2			carex, rush, polygonum
pond 102	7/17	1	man	perm	1-2			
pond 103	7/17	8	man	perm	>2			polygonum, foxtail barley
pond 104	7/17	1	man	perm	1-2			polygonum, foxtail barley, rush
pond 105	7/17	1	man	perm	1-2			polygonum, foxtail barley, sedge, rush
pond 106	7/17	1	man	perm				polygonum, foxtail barley
pond 107	7/17	1	man	temp	1-2			polygonum, foxtail barley, rush
pond 108	7/17	dry						

Appendix 2 (cont.). Characteristics of 1995 wetland survey sites on each 7 ½ minute USGS quad map [sites are numbered as in Figures].

Site	Date	Size	Origin	Desc.	Depth	pH	Herps	Emergent Vegetation
pond 109	7/17	dry						
pond 272	7/17	1	man		1-2	4.5	pstr	grass, polygonum, sedge
Papoose Hills								
pond 209	7/3	dry						
pond 210	7/3	dry						
pond 211	7/3	dry						
pond 212	7/3	dry						
pond 213	7/3	dry						
Rock Creek (215)	7/3		nat	perm	1-2	6.5	rapi	sedge, rush, grass
pond 217	7/18	1	man	temp	<1			rush, polygonum, grass
pond 218	7/18	dry						
pond 220	7/18	1	man	temp	<1	6.0	pstr	cattail, rush, polygonum
pond 223	7/18	1	man	temp	<1			rush, polygonum, foxtail barley
Rock Creek (224)	7/2		nat	perm	1-2			sedge, rush, grass
pond 226	7/3	3	man	perm	1-2	5.5	none	sedge, arrowhead, rush
pond 228	7/2	4	man	perm	>2	5.5	rapi	grass, sedge, rush
pond 231	7/2	2	man	temp	1-2	5.5	rapi	rush, sedge, bulrush
pond 234	7/2	1	man	temp	1-2		pstr	rush, grass, arrowhead
pond 237	7/2	1	man	temp	1-2	6.0	pstr	sedge, arrowhead
Rock Creek (239)	7/3		nat	perm	1-2			sedge, rush, grass
pond 241	7/2	1	man	temp	1-2	5.5	scbo	grass, forb
pond 244	7/2	20	man	perm	>2	5.5	chpi, pstr, thra, rapi	rush, grass, sedge
pond 250	7/2	2	man	temp	1-2	6.0	pstr	rush, polygonum
pond 253	7/3	1	man	temp	1-2		pstr	grass, sedge
pond 255	7/3	dry						
pond 256	7/3	1	man	temp		5.5	none	none

Appendix 2 (cont.). Characteristics of 1995 wetland survey sites on each 7 ½ minute USGS quad map [sites are numbered as in Figures].

Site	Date	Size	Origin	Desc.	Depth	pH	Herps	Emergent Vegetation
pond 255	7/3	dry						
Tule Lake								
pond 10	7/1	10	nat	temp	1-2		pstr, thra	rush, grass
pond 11	7/1	3	man	temp	1-2	5.5	pstr	rush, grass, sedge
pond 19	7/1	120	nat	perm	1-2		pstr	grass, sedge, bulrush
pond 20	7/1	20	nat	temp	<1		pstr	sedge, rush, grass
pond 21	7/1	5	man	temp	1-2		pstr	rush, grass
pond 22	7/1	5	man	perm	1-2		pstr	rush, grass
pond 23	7/1	2	man	perm	1-2		pstr	rush
pond 25	7/1	1	man	temp	1-2		pstr	rush
pond 27	7/1	1	man	perm	1-2			rush, grass, sedge
pond 29	7/1	1	man	perm	1-2			rush, bulrush, sedge
pond 31	7/1	1	man	temp	1-2		pstr	rush, grass
pond 34	7/1-2	70	man	perm	>2	5.5	pstr, thra, chpi	bulrush, cattail, sedge, rush, polygonum
pond 42	7/1	4	man	perm	1-2	5.0	pstr, thra	rush, grass, sedge, polygonum
pond 46	7/1	40	man	perm	1-2	5.5	pstr, amti	rush, grass, sedge
pond 50	7/1	1	man	temp	<1		pstr	grass, rush
pond 53	7/1	5	man	temp	1-2		pstr	
pond 56	7/1	1	nat	temp	<1	5.5	none	rush, grass
pond 58	7/1	2	man	perm		5.5	pstr	rush, grass, sedge
pond 61	7/1	2	nat	perm	1-2	5.5	pstr	rush, bulrush
pond 64 (NE)	7/1	3	nat	perm	<1	5.5	none	rush, sedge, grass
pond 64 (SW)	7/1	3	nat	perm	<1	5.5	none	rush, sedge, grass
pond 66	7/1	8	man	perm	>2	5.5	pstr	bulrush, sedge
pond 69	7/1	1	man	perm	1-2	5.0	pstr	rush, polygonum
pond 72	7/1	1	man	temp	1-2	6.0	pstr	rush, grass, sedge

Appendix 2 (cont.). Characteristics of 1995 wetland survey sites on each 7 ½ minute USGS quad map [sites are numbered as in Figures].

Site	Date	Size	Origin	Desc.	Depth	pH	Herps	Emergent Vegetation
pond 75	7/1	1	nat	perm	1-2	6.0	none	rush, sedge, grass, bulrush
pond 77	7/1	2	man	perm	1-2	5.5	pstr	rush, grass
Saddle Butte								
pond 310	6/5	dry						
pond 311	6/5	dry						
pond 312	6/5	dry						
pond 313	6/5	dry						
pond 314	6/5	dry						
Fresno Res (316)	6/5		very little water, only in main channel in this area					
pond 317	6/5	60	nat	temp	>2			
pond 318	6/5	20	nat	temp	<1			
pond 319	6/5	15	nat	temp	<1			
Tiber Dam								
Lake Elwell (303)	6/5	1000s	man	perm	>2	about 3000 acres scanned from above dam		
Marias River (302)	6/5	-	nat	perm	1-2			rush, sedge, cattail
Marias River (304)	6/5	-	nat	perm	>2			rush, sedge
White Horse Coulee								
pond 111	7/16	15	man	perm	>2	7.0	pstr	rush, bulrush, grass
pond 114	7/16	1	man	perm	1-2	5.5	pstr	polygonum, rush, foxtail barley
pond 117	7/17	1	man	temp	1-2	5.5	thra	foxtail barley, polygonum
pond 120	7/17	3	man	perm	>2	7.0	chpi	rush, polygonum, bulrush (short)
pond 123	7/17	1	man	temp	1-2	5.5	pstr	polygonum, grass
pond 125	7/17	dry						
pond 127	7/16	1	man	perm	1-2	5.5	pstr, amti	rush

Appendix 2 (cont.). Characteristics of 1995 wetland survey sites on each 7 ½ minute USGS quad map [sites are numbered as in Figures].

Site	Date	Size	Origin	Desc.	Depth	pH	Herps	Emergent Vegetation
pond 131	7/16	1	man	perm		5.5	pstr	rush, polygonum, sedge, cattail, bulrush
pond 134	7/16	1	man	perm	>2	6.5	none	rush, bulrush
pond 136	7/16	1	man		1-2	5.5	pstr	foxtail barley, polygonum
pond 139	7/16	1	man	perm	1-2		pstr	polygonum, sedge, grass, bulrush
pond 142	7/16	1	man	temp	1-2	5.5	chpi	grass, polygonum, rush
pond 145	7/16	1	man	perm	1-2	5.5	pstr, rapi	polygonum, sedge, bulrush
pond 149	7/16	1	man	perm	>2	5.5	pstr	sedge, rush, bulrush, cattail
pond 151	7/16	1	man	perm	1-2			foxtail barley, polygonum, bulrush
pond 152	7/16	1	man	perm	1-2			polygonum, sedge, rush, bulrush
pond 154	7/17	1	man	temp	1-2	6.0		arrowhead, short bulrush, cattail
pond 156	7/16	1	man	perm	1-2	5.5	pstr	polygonum, rush, foxtail barley, bulrush
pond 159	7/16	1	man	perm	1-2			foxtail barley, polygonum, bulrush
pond 158	7/16	1	man	perm	1-2	6.5	pstr	polygonum, rush, grass, sedge
pond 162	7/16	1	man	perm	>2		thra	polygonum
pond 165	7/15	1	man			7.0	pstr	grass, polygonum, bulrush
pond 167	7/15	dry						
pond 169	7/15	1	man	temp	1-2	5.5		rush, grass, sedge, polygonum
pond 171	7/15	1	man	perm	1-2	6.0	none	none
pond 172	7/16	1	man	perm	1-2			grass, polygonum, sedge, rush
pond 275	7/15	1	man	term	1-2			none
Weingart Place								
pond 173	7/14	1	man	temp	1-2			none
pond 174	7/13	1	man					forbs, grass, sedge
pond 176	7/13	1	man	temp	1-2	6.0	pstr	forbs, sedges, grass
pond 178	7/13	1	man	temp				grass, sedge, forbs
pond 180	7/13	dry						

Appendix 2 (cont.). Characteristics of 1995 wetland survey sites on each 7 ½ minute USGS quad map [sites are numbered as in Figures].

Site	Date	Size	Origin	Desc.	Depth	pH	Herps	Emergent Vegetation
pond 182	7/14	1	man	temp	1-2			grass, sedge, rush
pond 184	7/13	2	man	perm	>2		pstr	cattail, bulrush, sedge, grass
pond 187	7/13	1	man	temp	1-2	5.5	pstr	grass, sedge, rush
pond 190	7/14	1	man	temp	1-2	5.5	amti, pstr	grass, dock
pond 193	7/14	dry						
Fergus NE								
pond 195	7/14	3	man	perm	1-2	6.0	none	none
pond 197	7/14	1	man	temp	1-2	6.0	none	rush
pond 199	7/14	1	man	temp	1-2	5.5	rapi	foxtail barley, polygonum
pond 202	7/14	1	man	perm	>2		none	foxtail barley, bulrush
pond 204	7/14	1	man	perm	1-2	5.5	pstr	sedge, polygonum, grass, cattail, rush
pond 207	7/14	1	man	temp	1-2	6.0		grass, rush
pond 208	7/14	1	man	temp	<1			cattail, bulrush
Power								
pond 306	6/1	2	man	perm				none
pond 307	6/1	1	man	perm				none
pond 308	6/1	1	man	perm				none
pond 309	6/1	1	man	perm				none
Freezeout Lake								
Freezeout Lake	6/1-2	4000	nat	perm	>2		none	bulrush, cattail, rush, sedge
Miscellaneous								
South Beaver Res.	7/17	dry						
Triple Crossing Res.	7/17	dry						

Appendix 2 (cont.). Characteristics of 1995 wetland survey sites on each 7 ½ minute USGS quad map [sites are numbered as in Figures].

Site	Date	Size	Origin	Desc.	Depth	pH	Herps	Emergent Vegetation
Finn Reservoir	7/17	15	man	perm	>2			sedge, rush, cattail, bulrush
Grubb Reservoir	7/17	300	man	perm	>2			Russian olive
pond T25N R34E S20	7/15	1	man	perm	1-2	7.0	pstr	grass, polygonum
Lonesome Lake	6/10	dry						

APPENDIX 3.

COLONIAL NESTING WETLAND BIRDS

REPORTED FROM IN AND AROUND THE

BLM LEWISTOWN DISTRICT

Appendix 3. Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 178
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1970 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Blaine Township/Range: 035N018E Section: 23
Location: N. Chinook Reservoir
Collector/Observer: Moos, L.
Editor Initials: DDD Last Update: 04/03/1996
Comments: Ca. 30 nests in 1970.

User ID: 70 Mylar No: 10 Point No: 108
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 2/12/1981 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Garfield Township/Range: 021N042E Section: 36
Location: 2.45 mi. SW of Nelson Creek Recreation Site, Fort Peck Lake
Collector/Observer: Fries, R.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 12 (6) nests in 1978; 44 adults, 22 active nests and 44 young in 1977.

User ID: 70 Mylar No: 10 Point No: 186
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1978 Map Accuracy: < .5 mile. Breeding?: Yes
County: Garfield Township/Range: 021N036E Section: 2
Location: Fort Peck Lake
Collector/Observer: Shupe, R.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 270 adults, 75 active nests, 150 young in 1976; 30 active nests with 50 young in 1978.

User ID: 70 Mylar No: 10 Point No: 191
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 11/11/1976 Map Accuracy: < .5 mile. Breeding?: Yes
County: Lewis & Clark Township/Range: 011N003W Section: 22
Location: Tenmile Creek into Lake Helena
Collector/Observer: Thompson, L.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 14 adults, 8 active nests, 12 young.

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 161
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Liberty Township/Range: 030N004E Section: 3
Location: Willow Creek arm of Tiber Reservoir
Collector/Observer: Marble, H.
Editor Initials: DDD Last Update: 04/04/1996
Comments: Dozens of nests in 1980; 18(8) nests, 8 adults seen in 1979. Ring-billed gulls and California gulls attack eggs of D.C. Cormorants.

User ID: 70 Mylar No: 10 Point No: 183
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1978 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: McCone Township/Range: 020N043E Section: 6
Location: Fort Peck Lake
Collector/Observer: Shupe, R.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 2 rookeries with 42 adults, 21 active nests, 42 young, 230 adults, 116 active nests, and 230 young in 1976; 28 active nests with 43 young observed in 1978.

User ID: 70 Mylar No: 10 Point No: 116
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1976 Map Accuracy: < .5 mile. Breeding?: Yes
County: McCone Township/Range: 021N043E Section: 26
Location: Fort Peck Lake
Collector/Observer: Thompson, L.
Editor Initials: DDD Last Update: 04/04/1996
Comments: Nesting in 1976.

User ID: 70 Mylar No: 10 Point No: 187
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Petroleum Township/Range: Section: 0
Location: Musselshell River bottom
Collector/Observer: Fries, R.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 57 young seen in 1979

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 188
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Phillips Township/Range: Section: 0
Location: Miller Bottoms
Collector/Observer: Fries, R.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 5 young in 1979; 3 young in 1978.

Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: Data Type: O (Observation)
Date Observed: 7/18/1995 Map Accuracy: < .5 mile. Breeding?: Yes
County: Valley Township/Range: 031N036E Section: 26
Location: west of Burns Road in reservoir
Collector/Observer: Reichel, J.
Editor Initials: DDD Last Update: 04/04/1996
Comments: about 20 pairs with nests

User ID: 70 Mylar No: 10 Point No: 182
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 1/ 4/1977 Map Accuracy: < .5 mile. Breeding?: Yes
County: Phillips Township/Range: 031N031E Section: 27
Location: Malta, on Bowdoin National Wildlife Refuge
Collector/Observer: Refuge Personnel
Editor Initials: DDD Last Update: 04/04/1996
Comments: 156 active nests in 1972; 260 active nests in 1973; 373 active nests in 1974; 286 active nests in 1975; 236 active nests in 1976; 377 active nests in 1979.

User ID: 70 Mylar No: 10 Point No: 172
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Phillips Township/Range: 034N034E Section: 0
Location: Frenchman Reservoir
Collector/Observer: Trueblood
Editor Initials: DDD Last Update: 04/04/1996
Comments: Ca. 40 active nests in 1980.

User ID: 70 Mylar No: 10 Point No: 119
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / / 0 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Pondera Township/Range: 031N007W Section: 25
Location: Alkali Pond
Collector/Observer: Skaar
Editor Initials: DDD Last Update: 04/04/1996
Comments: Nesting.

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 101
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 2/18/1981 Map Accuracy: 0.5-5 mile. Breeding?: Yes
County: Teton Township/Range: 022N003W Section: 0
Location: Freezeout Lake
Collector/Observer: Children, D.
Editor Initials: DDD Last Update: 04/04/1996
Comments: Ca. 125 active nests in 1980

User ID: 70 Mylar No: 10 Point No: 184
Species: ABNFD01020 (DOUBLE-CRESTED CORMORANT)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 7/17/1976 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Valley Township/Range: 023N038E Section: 16
Location: Fort Peck Reservoir
Collector/Observer: Shupe, R.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 318 adults, 125 active nests, 212 young seen in 1977; 195 active nests, 340 young counted in 1978

User ID: 70 Mylar No: 10 Point No: 152
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 8/ /1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Flathead Township/Range: 027N018W Section: 22
Location: Ferndale
Collector/Observer: Parker, J.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 21(18) nests and 46 fledglings in 1978; 23(17) nests and 41 fledglings in 1979.

User ID: 70 Mylar No: 10 Point No: 160
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Teton Township/Range: Section: 0
Location: Between Chouteau and Conrad, 6 mi. E. of Bynum (data from 125,000 scale map)
Collector/Observer: Olson, G.
Editor Initials: DDD Last Update: 04/04/1996
Comments: Active in 1979, at least 12 active nests in 1980.

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 21
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1970 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Cascade Township/Range: 021N001W Section: 35
Location: Sun River, near Vaughn
Collector/Observer: Ellis, D.
Editor Initials: DDD Last Update: 04/03/1996
Comments: Active 1969, 1970. At least 3 active nests in 1980.

User ID: 70 Mylar No: 10 Point No: 102
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 11/11/1976 Map Accuracy: < .5 mile. Breeding?: Yes
County: Lewis & Clark Township/Range: 011N003W Section: 22
Location: Tenmile Creek into Lake Helena
Collector/Observer: Thompson, L.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 56 adults, 40 active nests. 58 old nests counted in main rookery. First observed 1974. Active 1969-1970 (D. Billings). Double Crested Cormorants, Canadian goose, and great horned owl present.

User ID: 70 Mylar No: 10 Point No: 163
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 4/20/1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Jefferson Township/Range: Section: 0
Location: S. of Boulder (data from 125,000 scale map)
Collector/Observer: Thompson, L.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 9 active nests in 1980.

User ID: 70 Mylar No: 10 Point No: 103
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1979 Map Accuracy: < .5 mile. Breeding?: Yes
County: Broadwater Township/Range: 007N002E Section: 18
Location: Townsend, Canyon Ferry Lake
Collector/Observer: Billings, D.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 60 (35) nests in 1978; 55 GBH nests in 1979. Double Crested Cormorants nesting.

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 86
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / / 0 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Broadwater Township/Range: Section: 0
Location: F&G range, Mt. Haggin Ranch, Deep Cr. off Big Hole (data from 125,000 scale map)
Collector/Observer: Armstrong, J.
Editor Initials: DDD Last Update: 04/04/1996
Comments: Rookeries.

User ID: 70 Mylar No: 10 Point No: 164
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 5/ 4/1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Broadwater Township/Range: Section: 0
Location: Holker, Townsend (data from 125,000 scale map)
Collector/Observer: Thompson, L.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 25+(16+) nests in 1980

User ID: 70 Mylar No: 10 Point No: 40
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1975 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Park Township/Range: 003N009E Section: 17
Location: Shields River, near Wilsall
Collector/Observer: Hook
Editor Initials: DDD Last Update: 04/03/1996
Comments: 5 active, 5 inactive nests in 1975

User ID: 70 Mylar No: 10 Point No: 23
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 4/17/1979 Map Accuracy: < .5 mile. Breeding?: Yes
County: Meagher Township/Range: 009N006E Section: 15
Location: Smith Creek, 2 miles W. of White Sulphur Springs
Collector/Observer: Hills, G.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 21 (18-20) nests, 44 adults seen in 1979. Observed in 1977.

User ID: 70 Mylar No: 10 Point No: 90
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 5/ /1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Liberty Township/Range: 029N005E Section: 16
Location: Marias River, 4 mi. W. of 223 bridge
Collector/Observer: Marble, H.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 21(14) nests, 18 adults seen

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 22
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1980 Map Accuracy: < .5 mile. Breeding?: Yes
County: Chouteau Township/Range: 024N009E Section: 4
Location: Missouri River, near Fort Benton
Collector/Observer: Hook, D.
Editor Initials: DDD Last Update: 04/03/1996
Comments: Active in 1980;50, 35, and 36 nests (# active unknown) in 9-76;80 (20) nests in 1979, active 1977, 1978

User ID: 70 Mylar No: 10 Point No: 169
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 5/17/1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Chouteau Township/Range: 026N012E Section: 7
Location: Virgille
Collector/Observer: Hadden, G. W.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 4 active nest in 1979. Vacant in 1978, occupied in 1977

User ID: 70 Mylar No: 10 Point No: 168
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Hill Township/Range: Section: 0
Location: 2 mi. W. of Boxelder (data from 125,000 scale map)
Collector/Observer: Trueblood
Editor Initials: DDD Last Update: 04/04/1996
Comments: Active in 1979; ca. 35 nests in 1980

User ID: 70 Mylar No: 10 Point No: 53
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1977 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Wheatland Township/Range: Section: 0
Location: Musselshell River (data from 125,000 scale map)
Collector/Observer: Thompson, L.
Editor Initials: DDD Last Update: 04/03/1996
Comments: Active 1976-1977

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 138
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / / 0 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Petroleum Township/Range: Section: 0
Location: Flatwillow Creek (data from 125,000 scale map)
Collector/Observer: Rockwell, S.
Editor Initials: DDD Last Update: 04/10/1996
Comments: Nesting

User ID: 70 Mylar No: 10 Point No: 87
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / / 0 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Petroleum Township/Range: Section: 0
Location: Petrolina Lake (data from 125,000 scale map)
Collector/Observer: Moos, L.
Editor Initials: DDD Last Update: 04/04/1996

User ID: 70 Mylar No: 10 Point No: 93
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1977 Map Accuracy: < .5 mile. Breeding?: Yes
County: Fergus Township/Range: Section: 0
Location: McDonald Creek (data from 125,000 scale map)
Collector/Observer: Ayers, D.
Editor Initials: DDD Last Update: 04/04/1996
Comments: Occupied rookery.

User ID: 70 Mylar No: 10 Point No: 52
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 6/29/1977 Map Accuracy: < .5 mile. Breeding?: Yes
County: Fergus Township/Range: 015N018E Section: 5
Location: Big Spring Creek
Collector/Observer: Billings, D.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 35-40 active nests in 1977; active 1969-1970

Usser ID: 70 Mylar No: 10 Point No: 49
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Petroleum Township/Range: Section: 0
Location: Musselshell River bottom (data from 125,000 scale map)
Collector/Observer: Fries, R.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 50 young seen in 1981. Cormorants

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 77
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1971 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Phillips Township/Range: Section: 0
Location: Charles M. Russell National Wildlife Range, Lewistown (data from 125,000 scale map)
Collector/Observer: Martin, F. R.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 42 occupied nests in 1971; 48 active nests in 1968

User ID: 70 Mylar No: 10 Point No: 79
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1970 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Phillips Township/Range: 020N030E Section: 11
Location: UL Bend, Missouri River
Collector/Observer: Foster, J.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 11 active nests in 1970; 106 nests on E. side destroyed by ice in 1968

User ID: 70 Mylar No: 10 Point No: 51
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 5/17/1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Fergus Township/Range: 023N016E Section: 26
Location: Missouri River and Judith River
Collector/Observer: Hadden, G. W.
Editor Initials: DDD Last Update: 04/03/1996
Comments: At least 3 rookeries; 100(20) nests in 1979; 48 nests in 1968; active 1977, 1978

User ID: 70 Mylar No: 10 Point No: 176
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 5/ 1/1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Fergus Township/Range: 023N022E Section: 7
Location: Missouri River, Cow Island, 20 upstream from Fred Robinson Bridge
Collector/Observer: Hadden, G. W.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 7 nests in 1977; abandoned in 1978, 1979

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 50
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Phillips Township/Range: Section: 0
Location: Miller Bottoms (data from 125,000 scale map)
Collector/Observer: Fries, R.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 70 young in 1979; 70 young in 1978

User ID: 70 Mylar No: 10 Point No: 109
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1978 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: McCone Township/Range: 020N043E Section: 6
Location: Fort Peck Lake
Collector/Observer: Shupe, R.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 2 rookeries, with 4 adults, 3 active nests and 9 young and 20 adults, 25 active nests and 11 young observed in 1976; 23 active nests and 49 young observed in 1978

User ID: 70 Mylar No: 10 Point No: 76
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 7/17/1976 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: McCone Township/Range: 020N043E Section: 27
Location: Nelson Coulee Recreation Area
Collector/Observer: Shupe, R.
Editor Initials: DDD Last Update: 04/03/1996
Comments: 9 adults, 8 active nests, 16 young seen in 1976

User ID: 70 Mylar No: 10 Point No: 46
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / / 0 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Garfield Township/Range: 021N038E Section: 5
Location: Hell Creek Bay
Collector/Observer: Billings, D.
Editor Initials: DDD Last Update: 04/03/1996
Comments: Active, with cormorants.

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 115
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1976 Map Accuracy: < .5 mile. Breeding?: Yes
County: Garfield Township/Range: 021N036E Section: 2
Location: Fort Peck Lake
Collector/Observer: Shupe, R.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 1 adult, 3 active nests observed in 1976

User ID: 70 Mylar No: 10 Point No: 107
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 7/17/1976 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Valley Township/Range: 023N038E Section: 16
Location: Fort Peck Reservoir
Collector/Observer: Shupe, R.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 125 nests

User ID: 70 Mylar No: 10 Point No: 171
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Valley Township/Range: Section: 0
Location: 0.5 mi. S. of Glasgow (data from 125,000 scale map)
Collector/Observer: Trueblood
Editor Initials: DDD Last Update: 04/04/1996
Comments: Ca. 20 nests in 1979; active in 1980

User ID: 70 Mylar No: 10 Point No: 158
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Phillips Township/Range: Section: 0
Location: Nelson Reservoir (data from 125,000 scale map)
Collector/Observer: Billings, D.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 15 active nests in 1980.

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 106
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 1/ 4/1977 Map Accuracy: < .5 mile. Breeding?: Yes
County: Phillips Township/Range: 031N031E Section: 27
Location: Malta, on Bowdoin National Wildlife Refuge
Collector/Observer: Refuge Personnel
Editor Initials: DDD Last Update: 04/04/1996
Comments: Earliest known occupied in 1903. 32 adults in 1968; 12 active nests in 1972; 16 active nests in 1973; 24 active nests in 1974; 20 active nests in 1975; 22 active nests in 1976; 15 active nests in 1979 California Gull, white pelican, ring-billed gull, and double crested cormorant also nest in rookery

User ID: 70 Mylar No: 10 Point No: 170
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1980 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Blaine Township/Range: Section: 0
Location: Lohnman (data from 125,000 scale map)
Collector/Observer: Trueblood
Editor Initials: DDD Last Update: 04/04/1996
Comments: Ca. 30 nests, active quite a while

User ID: 70 Mylar No: 10 Point No: 42
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1970 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Blaine Township/Range: 033N019E Section: 36
Location: Chinook (data from 125,000 scale map)
Collector/Observer: Billings, D.
Editor Initials: DDD Last Update: 04/03/1996
Comments: Active, 1769-1970

User ID: 70 Mylar No: 10 Point No: 91
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: / /1979 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Hill Township/Range: 033N014E Section: 25
Location: Milk River, between Fresno Dam and Havre (data from 125,000 scale map)
Collector/Observer: Marble, H.
Editor Initials: DDD Last Update: 04/04/1996
Comments: 40 nests, 20-30 birds in 1969; 9 nests in 1979, abandoned. Last known to be occupied in 1977.

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

User ID: 70 Mylar No: 10 Point No: 41
Species: ABNGA04010 (GREAT BLUE HERON)
Source: U79THO02 Data Type: O (Observation)
Date Observed: 2/10/1981 Map Accuracy: .5 to 5 mil Breeding?: Yes
County: Blaine Township/Range: 035N018E Section: 23
Location: N. Chinook Reservoir (data from 125,000 scale map)
Collector/Observer: Moos, L.
Editor Initials: DDD Last Update: 04/03/1996
Comments: Ca. 10 active nests in 1981; Active in 1971

Species: BLACK-CROWNED NIGHT-HERON
Source: Data Type: O (Observation)
Date Observed: 15 June 1987 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T28N R27E Section: 2 SENE
Location: Hoss Reservoir
Collector/Observer: Prellwitz, D. M.
Comments: in willows on islands were 14 herons on 20 Aug 1982, 4 on 3 July 1984, 11 adults and 6 nests on 12 June 1985, and 50 with at least 4 active nests on 15 June 1987; all were on BLM lands

Species: BLACK-CROWNED NIGHT-HERON
Source: Data Type: O (Observation)
Date Observed: 3 July 1984 Map Accuracy: < 0.5 mi Breeding?: unk
County: Phillips Township/Range: T28N R27E Section: 2 SWSW
Location: Red Fox Reservoir
Collector/Observer: Prellwitz, D. M.
Comments: 5 on 3 July 1984; nesting not confirmed but suitable habitat occurs; all were on BLM lands

Species: BLACK-CROWNED NIGHT-HERON
Source: Data Type: O (Observation)
Date Observed: pre-1987 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T28N R28E Section: 22 SWNE
Location: PR-161 Reservoir
Collector/Observer: Prellwitz, D. M.
Comments: Have nested at this site, but no data on numbers; BLM lands

Species: BLACK-CROWNED NIGHT-HERON
Source: Data Type: O (Observation)
Date Observed: 12 June 1985 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T27N R28E Section: 35 SENE
Location: Fight Reservoir
Collector/Observer: Prellwitz, D.M.
Comments: 4 herons and probable nests on 12 June 1985; greater numbers in 1986 and 1987; BLM lands

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

Species: WHITE-FACED IBIS
Source: Data Type: O (Observation)
Date Observed: 1991 Map Accuracy: 0.5-5 mile. Breeding?: Yes
County: Teton Township/Range: 022N003W Section: 0
Location: Freezeout Lake
Collector/Observer: Dubois, K..
Editor Initials: DDD Last Update: 04/04/1996

Species: WHITE-FACED IBIS
Source: Data Type: O (Observation)
Date Observed: 1988 Map Accuracy: 0.5-5 mile. Breeding?: Yes
County: Teton Township/Range: 022N003W Section: 0
Location: Freezeout Lake
Collector/Observer: Sullivan, D.

Species: BLACK-NECKED STILT
Source: Data Type: O (Observation)
Date Observed: 12 June 1987 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T29N R28E Section: 20 NWNE
Location: Nice Pond
Collector/Observer: Prellwitz, D.M.
Comments: 2 pairs on 12 June 1987; both were on BLM portion of wetlands

Species: CASPIAN TERN
Source: Data Type: O (Observation)
Date Observed: 5/14/1994 Map Accuracy: 0.5-5 mile. Breeding?: Yes
County: Teton Township/Range: 022N003W Section: 0
Location: Freezeout Lake
Collector/Observer: Schwitters, M..
Editor Initials: DDD Last Update: 04/04/1996
Comments: 1 pair incubation on island; nest apparently not successful.

Species: COMMON TERN
Source: Data Type: O (Observation)
Date Observed: 22 June 1987 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T36N R31E Section: 26 NESWSW; 35 NESE; 35 SWSE
Location: Whitewater Lake
Collector/Observer: Prellwitz, D.M.
Comments: 6-16 nests on several islands on 6 June 1986, 26 June 1986, 22 June 1987; BLM lands

Species: COMMON TERN
Source: Data Type: O (Observation)
Date Observed: 1988 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T32N R32E Section:
Location: Nelson Reservoir
Collector/Observer: Prellwitz, D.M.
Comments: at least 25 pairs on island in Section 33 SE, and 3 pairs in Section 23 SWNE in 1988

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

Species: COMMON TERN
Source: Data Type: O (Observation)
Date Observed: 12 June 1987 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T29N R28E Section: 20 NWNE
Location: Nice Pond
Collector/Observer: Prellwitz, D.M.
Comments: 3 nests on 16 June 1986; 13 nests on 12 June 1987; all were on BLM portion of wetlands

Species: COMMON TERN
Source: Data Type: O (Observation)
Date Observed: 12 June 1985 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T28N R28E Section: 4 SWNW
Location: PR-313 Reservoir
Collector/Observer: Prellwitz, D.M.
Comments: 1 nest on island on 12 June 1985; BLM lands

Species: COMMON TERN
Source: Data Type: O (Observation)
Date Observed: 6 July 1984 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T27N R30E Section: 29 NWSE
Location: Spencer Reservoir
Collector/Observer: Prellwitz, D.M.
Comments: 3 nests on islands on 6 July 1984; BLM owned islands

Species: COMMON TERN
Source: Data Type: O (Observation)
Date Observed: 16 June 1983 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T27N R32E Section: 30 SENW
Location: unnamed natural wetland
Collector/Observer: Prellwitz, D.M.
Comments: 5 nests on island; BLM owned islands

Species: COMMON TERN
Source: Data Type: O (Observation)
Date Observed: 30 July 1987 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Valley Township/Range: T26N R37E Section: 19 NWSW
Location: Lone Tree Spreader Dikes
Collector/Observer: Prellwitz, D.M.
Comments: flightless young on an island; BLM owned islands

Species: COMMON TERN
Source: Data Type: O (Observation)
Date Observed: 18 June 1986 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T25N R30E Section: 11 NWNW
Location: Flat Reservoir
Collector/Observer: Prellwitz, D.M.
Comments: on islands on 4 Aug 1981 (6 terns), 9 June 1983 (15 nests), 18 June 1986 (1 nest); BLM owned lands

Appendix 3 (Cont). Colonial nesting wetland birds reported from in and around the BLM Lewistown District [NOTE: Does not include all locations on National Wildlife Refuges, however, those locations are plotted on overview maps in this report]

Species: BLACK TERN
Source: Data Type: O (Observation)
Date Observed: 23 June 1987 Map Accuracy: < 0.5 mi Breeding?: Yes
County: Phillips Township/Range: T36N R27E Section: 10 NENW
Location: Woody Island Coulee Wetland
Collector/Observer: Prellwitz, D.M.
Comments: 1 nest on man-made island

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: AECHMOPHORUS CLARKII
Common Name: CLARK'S GREBE

Global rank: G5 Forest Service status:
State rank: S2S4B,SZN Federal Status:

Element occurrence code: ABNCA04020.001
Element occurrence type:

Survey site name: FREEZEOUT LAKE
EO rank:
EO rank comments:

County: TETON

USGS quadrangle: FREEZEOUT LAKE

Township:	Range:	Section:	TRS comments:
022N	003W	20	

Precision: M
Survey date: Elevation: 3765 -
First observation: 1990-05 Slope/aspect:
Last observation: 1993-05-16 Size (acres):

Location:
FREEZEOUT LAKE IS WEST OF US 89 CA. 4 MILES NORTH OF FAIRFIELD.

Element occurrence data:
1993: BUILDING NEST ON 5/16, 3 YOUNG ON 7/11. BIRDS OBSERVED BREEDING AND PROBABLY BREEDING ON VARIOUS DATES. NO POPULATION INFORMATION. ADDITIONAL INFORMATION AVAILABLE FROM MTHP.

General site description:
MAIN LAKE BELOW POND NO. 6.

Land owner/manager:
FREEZEOUT LAKE WILDLIFE MANAGEMENT AREA

Comments:

Information source: MONTANA NATURAL HERITAGE PROGRAM. ["MBD" (MONTANA BIRD DISTRIBUTION) DATABASE OF BIRD OBSERVATIONS COMPILED FROM MANY SOURCES, WITH LOCATION AND ASSOCIATED DATA MAINTAINED IN DBASE III+.] CREATED APRIL, 1991 WITH ONGOING UPDATES.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: PELECANUS ERYTHRORHYNCHOS
Common Name: AMERICAN WHITE PELICAN

Global rank: G3 Forest Service status:
State rank: S2B,SZN Federal Status:

Element occurrence code: ABNFC01010.002
Element occurrence type:

Survey site name: ALKALI LAKE
EO rank: D
EO rank comments:

County: PONDERA

USGS quadrangle: FLAG BUTTE

Township:	Range:	Section:	TRS comments:
031N	006W	30	NW4

Precision: S
Survey date: 1994 Elevation: 3784 -
First observation: 1988 Slope/aspect:
Last observation: 1992 Size (acres): 2

Location:
TAKE ROUTE 89 NORTH TO VALIER, PROCEED NORTH AND THEN WEST ON ROAD TO CUT BANK. TAKE ONE OF SEVERAL COUNTY ROADS WEST TO ALKALI LAKE.

Element occurrence data:
NO NESTS PRESENT IN 1992, 1994, OR 1995; LOW WATER LEVELS ALLOWED CATTLE AND COYOTES ACCESS TO ISLAND. 1990: CA. 80 ADULTS AND 200+ YOUNG OBSERVED, MANY NESTS ON ISLAND.

General site description:
SPRAWLING ALKALI LAKES WITH VARIABLE WATER LEVELS.

Land owner/manager:
BLACKFEET INDIAN RESERVATION

Comments:
ISLAND NOT SHOWN ON QUAD. CORMORANTS ALSO NESTING.

Information source: GENTER, DAVID L. MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 201800, HELENA, MT 59620-1800. WORK: 406/444-3009.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: PELECANUS ERYTHRORHYNCHOS
Common Name: AMERICAN WHITE PELICAN

Global rank: G3 Forest Service status:
State rank: S2B,SZN Federal Status:

Element occurrence code: ABNFC01010.004
Element occurrence type:

Survey site name: EYRAUD (AROD) LAKE
EO rank: B
EO rank comments: NOT SURE OF WATER SECURITY; IF NOT SECURE SHOULD BE RANKED C; SITE IS NEITHER REMOTE, NOR IS ACCESS RESTRICTED.

County: TETON

USGS quadrangle: EYRAUD LAKES

Township:	Range:	Section:	TRS comments:
026N	003W	20	NE4

Precision: S
Survey date: Elevation: 3745 -
First observation: 1989 Slope/aspect:
Last observation: 1993-07 Size (acres): 2

Location:
FROM CHOTEAU, GO NORTH ON SR 220 AND FOLLOW SIGNS TO "AROD" LAKES FISHING ACCESS SITE.

Element occurrence data:
1989: DENNIS AND LEE FLATH OBSERVED CA. 100 PELICAN NESTS WITH APPROX. 100 ADULTS AND 200 YOUNG. 6-10 NESTS STILL HAD YOUNG IN NEST; ALL OTHERS GATHERED ALONG SHORE. ALSO OBSERVED APPROX. 6 CORMORANT NESTS WITH YOUNG ON WESTERN END OF ISLAND. 1992: BANDED OVER 500 YOUNG ON EAST ISLAND; MANY NESTS ON CENTRAL ISLAND TOO. 1994: IN EARLY JUNE THERE WERE 1100 NESTS ON THE EAST ISLAND AND 700 ON THE MIDDLE ISLAND.

General site description:
ONE OF 3 ISLANDS IN RESERVOIR IN MIDDLE OF WHEAT FIELDS.

Land owner/manager:
STATE LAND - UNDESIGNATED

Comments:
CORMORANTS ALSO NESTING. MTDFWP HAS ACCESS TO PORTION OF LAKE IN SECTION 19.

Information source: JONES, CEDRON. MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 201800, HELENA, MT 59620-1800.
Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: NYCTICORAX NYCTICORAX
Common Name: BLACK-CROWNED NIGHT-HERON

Global rank: G5 Forest Service status:
State rank: S3B,SZN Federal Status:

Element occurrence code: ABNGA11010.003
Element occurrence type:

Survey site name: FREEZEOUT LAKE
EO rank:
EO rank comments:

County: TETON

USGS quadrangle: FREEZEOUT LAKE

Township:	Range:	Section:	TRS comments:
022N	003W	20	

Precision: M
Survey date: Elevation: 3765 -
First observation: 1985-05 Slope/aspect:
Last observation: 1995 06 02 Size (acres):

Location:
FREEZEOUT LAKE IS WEST OF US 89 CA. 4 MILES NORTH OF FAIRFIELD.

Element occurrence data:
NO POPULATION ESTIMATES. BIRDS OBSERVED ON NUMEROUS OCCASIONS.
ADDITIONAL INFORMATION AVAILABLE FROM MTHP.

General site description:
MAIN LAKE BELOW POND NO. 6.

Land owner/manager:
FREEZEOUT LAKE WILDLIFE MANAGEMENT AREA

Comments:

Information source: MONTANA NATURAL HERITAGE PROGRAM. ["MBD" (MONTANA BIRD DISTRIBUTION) DATABASE OF BIRD OBSERVATIONS COMPILED FROM MANY SOURCES, WITH LOCATION AND ASSOCIATED DATA MAINTAINED IN DBASE III+.] CREATED APRIL, 1991 WITH ONGOING UPDATES.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: HIMANTOPUS MEXICANUS
Common Name: BLACK-NECKED STILT

Global rank: G5 Forest Service status:
State rank: S2B,SZN Federal Status:

Element occurrence code: ABNND01010.001
Element occurrence type:

Survey site name: FREEZEOUT LAKE
EO rank:
EO rank comments:

County: TETON

USGS quadrangle: FREEZEOUT LAKE

Township:	Range:	Section:	TRS comments:
022N	003W	7	SW4

Precision: M
Survey date: Elevation: 3773 -
First observation: 1989 Slope/aspect:
Last observation: 1995-06-02 Size (acres):

Location:
FREEZEOUT LAKE IS WEST OF US 89 CA. 4 MILES NORTH OF FAIRFIELD.

Element occurrence data:
BIRDS OBSERVED ON SEVERAL OCCASIONS. ADDITIONAL INFORMATION AVAILABLE FROM MTHP.

General site description:
ALKALI FLAT BETWEEN MAIN LAKE AND POND NO. 5.

Land owner/manager:
FREEZEOUT LAKE WILDLIFE MANAGEMENT AREA

Comments:

Information source: MONTANA NATURAL HERITAGE PROGRAM. ["MBD" (MONTANA BIRD DISTRIBUTION) DATABASE OF BIRD OBSERVATIONS COMPILED FROM MANY SOURCES, WITH LOCATION AND ASSOCIATED DATA MAINTAINED IN DBASE III+.] CREATED APRIL, 1991 WITH ONGOING UPDATES.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: LARUS PIPIXCAN
Common Name: FRANKLIN'S GULL

Global rank: G5 Forest Service status:
State rank: S3B,SZN Federal Status:

Element occurrence code: ABNNM03020.005
Element occurrence type:

Survey site name: FREEZEOUT LAKE
EO rank:
EO rank comments:

County: TETON

USGS quadrangle: FREEZEOUT LAKE

Township:	Range:	Section:	TRS comments:
022N	003W	20	

Precision: M
Survey date: 1995-06-02 Elevation: 3765 -
First observation: 1958-04 Slope/aspect:
Last observation: 1995-06-02 Size (acres):

Location:
FREEZEOUT LAKE IS WEST OF US 89 CA. 4 MILES NORTH OF FAIRFIELD.

Element occurrence data:
1995: SEVERAL HUNDRED NESTING IN BULRUSHES. 1994: 500-5000; PRE 1994: 18,000; 1958: ON 10 SAMPLE PLOTS (0.1 AC) 5-111 NESTS WERE FOUND; NO POPULATION ESTIMATE WAS MADE. BIRDS OBSERVED ON NUMEROUS OCCASIONS. ADDITIONAL INFORMATION AVAILABLE FROM MTHP.

General site description:
MAIN LAKE BELOW POND NO. 6.

Land owner/manager:
FREEZEOUT LAKE WILDLIFE MANAGEMENT AREA

Comments:

Information source: MONTANA NATURAL HERITAGE PROGRAM. ["MBD" (MONTANA BIRD DISTRIBUTION) DATABASE OF BIRD OBSERVATIONS COMPILED FROM MANY SOURCES, WITH LOCATION AND ASSOCIATED DATA MAINTAINED IN DBASE III+.] CREATED APRIL, 1991 WITH ONGOING UPDATES.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: STERNA HIRUNDO
Common Name: COMMON TERN

Global rank: G5 Forest Service status:
State rank: S3B,SZN Federal Status:

Element occurrence code: ABNNM08070.001
Element occurrence type:

Survey site name: FREEZEOUT LAKE
EO rank:
EO rank comments:

County: TETON

USGS quadrangle: FREEZEOUT LAKE

Township:	Range:	Section:	TRS comments:
023N	004W	25	6; 7

Precision: M
Survey date: Elevation: 3770 -
First observation: 1959 Slope/aspect:
Last observation: 1995-06-02 Size (acres):

Location:
FREEZEOUT LAKE IS WEST OF US 89 CA. 4 MILES NORTH OF FAIRFIELD.

Element occurrence data:
1995: 110-120 NESTS ON 1-2 JUNE (M. SCHWITTERS); 1991: CONFIRMED BREEDING.

General site description:
ISLANDS ON POND NO. 1, POND 2, POND 3, POND 5, AND SOUTHERN END OF FREEZEOUT LAKE. SOME NESTING WITH FRANKLIN'S GULLS.

Land owner/manager:
FREEZEOUT LAKE WILDLIFE MANAGEMENT AREA

Comments:
OBSERVED MAY 1991 AND IN 1995 BY M. SCHWITTERS AND IN 1991 BY D. SULLIVAN.

Information source: MONTANA NATURAL HERITAGE PROGRAM. ["MBD" (MONTANA BIRD DISTRIBUTION) DATABASE OF BIRD OBSERVATIONS COMPILED FROM MANY SOURCES, WITH LOCATION AND ASSOCIATED DATA MAINTAINED IN DBASE III+.] CREATED APRIL, 1991 WITH ONGOING UPDATES.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: STERNA FORSTERI
Common Name: FORSTER'S TERN

Global rank: G5 Forest Service status:
State rank: S3B,SZN Federal Status:

Element occurrence code: ABNNM08090.005
Element occurrence type:

Survey site name: FREEZEOUT LAKE
EO rank:
EO rank comments:

County: TETON

USGS quadrangle: FREEZEOUT LAKE

Township:	Range:	Section:	TRS comments:
022N	003W	20	

Precision: M
Survey date: Elevation: 3765 -
First observation: 1991 Slope/aspect:
Last observation: 1995-06-02 Size (acres):

Location:
FREEZEOUT LAKE IS WEST OF US 89 CA. 4 MILES NORTH OF FAIRFIELD.

Element occurrence data:
1995: APPROXIMATELY 12 PAIRS BREEDING (4 NESTS SEEN) ON 1-2 JUNE (M. SCHWITTERS); PRE-1995: BIRDS OBSERVED ON SEVERAL OCCASIONS. ADDITIONAL INFORMATION AVAILABLE FROM MTHP.

General site description:
ISLAND IN MAIN LAKE BELOW POND NO. 6 AND EAST OF LOWER PENINSULA.

Land owner/manager:
FREEZEOUT LAKE WILDLIFE MANAGEMENT AREA

Comments:

Information source: MONTANA NATURAL HERITAGE PROGRAM. ["MBD" (MONTANA BIRD DISTRIBUTION) DATABASE OF BIRD OBSERVATIONS COMPILED FROM MANY SOURCES, WITH LOCATION AND ASSOCIATED DATA MAINTAINED IN DBASE III+.] CREATED APRIL, 1991 WITH ONGOING UPDATES.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: CHLIDONIAS NIGER
Common Name: BLACK TERN

Global rank: G4 Forest Service status:
State rank: S3B,SZN Federal Status:

Element occurrence code: ABNNM10020.006
Element occurrence type:

Survey site name: FIFTEENMILE LAKE
EO rank:
EO rank comments:

County: BLAINE

USGS quadrangle: TULE LAKE

Township:	Range:	Section:	TRS comments:
034N	021E	18	W2

Precision: M
Survey date: Elevation: 2716 -
First observation: 1995-07-02 Slope/aspect:
Last observation: 1995-07-02 Size (acres):

Location:
9 MILES NORTH OF ZURICH; POND ON FIFTEENMILE CREEK, CA. 2 MILES NORTH OF TULE LAKE.

Element occurrence data:
30-60 ADULTS DISPLAYING WITH FOOD AND COURTSHIP.

General site description:
POND WITH JUNCUS, BULRUSH, GRASS, SEDGES, POLYGONUM. ALSO COMMON TERN, WHITE PELICAN, GREAT BLUE HERON, RING-BILLED GULL, AND FRANKLIN'S GULL PRESENT BUT NO EVIDENCE OF BREEDING.

Land owner/manager:
BLM: LEWISTOWN DISTRICT, HAVRE RESOURCE AREA

Comments:
OBSERVED BY J. REICHEL.

Information source: REICHEL, JAMES D. [ZOOLOGIST] MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 201800, HELENA, MT 59620-1800. WORK: (406) 444-3009.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: CHLIDONIAS NIGER
Common Name: BLACK TERN

Global rank: G4 Forest Service status:
State rank: S3B,SZN Federal Status:

Element occurrence code: ABNNM10020.008
Element occurrence type:

Survey site name: FREEZEOUT LAKE
EO rank:
EO rank comments:

County: TETON

USGS quadrangle: FREEZEOUT LAKE

Township:	Range:	Section:	TRS comments:
022N	003W	20	

Precision: M
Survey date: 1995-06-02 Elevation: 3765 -
First observation: 1989 Slope/aspect:
Last observation: 1995-06-02 Size (acres):

Location:
FREEZEOUT LAKE IS WEST OF US 89 CA. 4 MILES NORTH OF FAIRFIELD.

Element occurrence data:
1995: AT LEAST 50 ADULTS PRESENT. ADDITIONAL INFORMATION AVAILABLE FROM MTHP.

General site description:
MAIN LAKE BELOW POND NO. 6.

Land owner/manager:
FREEZEOUT LAKE WILDLIFE MANAGEMENT AREA

Comments:

Information source: MONTANA NATURAL HERITAGE PROGRAM. ["MBD" (MONTANA BIRD DISTRIBUTION) DATABASE OF BIRD OBSERVATIONS COMPILED FROM MANY SOURCES, WITH LOCATION AND ASSOCIATED DATA MAINTAINED IN DBASE III+.] CREATED APRIL, 1991 WITH ONGOING UPDATES.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: CHARADRIUS MELODUS
Common Name: PIPING PLOVER

Global rank: G3 Forest Service status: THREATENED
State rank: S2B,SZN Federal Status: LTLE

Element occurrence code: ABNNB03070.042
Element occurrence type:

Survey site name: ALKALI LAKE
EO rank: C
EO rank comments:

County: PONDERA

USGS quadrangle: FLAG BUTTE

Township:	Range:	Section:	TRS comments:
031N	007W	25	NE4

Precision: M
Survey date: Elevation: 3780 -
First observation: 1990 Slope/aspect:
Last observation: 1992-07-16 Size (acres):

Location:
TAKE SR 358 NORTH FROM VALIER TO CA. 2 MILES SOUTH OF TWO MEDICINE RIVER, THEN WEST ON FARM TRACK TO ALKALI LAKE.

Element occurrence data:
1990: 5 ADULTS AND 1 JUVENILE OBSERVED. 1992: 11 ADULTS (5 BREEDING PAIRS) OBSERVED IN JUNE, WITH 5 CHICKS IN JULY. 1994: NO BIRDS PRESENT ON 17 JUNE; SURVEY BY MIKE SCHWITTERS.

General site description:
MOSTLY SAND/SILT BEACH ON NORTH SIDE OF ISTHMUS BETWEEN THE LAKES, WITH A FEW PATCHES OF COBBLES.

Land owner/manager:
BLACKFEET INDIAN RESERVATION

Comments:
NESTING HABITAT (COBBLES/GRAVEL) APPEARS TO BE VERY LIMITED. BIRDS MAY BE NESTING IN ANNUAL GRASSES BELOW HIGH WATER LINE.

Information source: JONES, CEDRON. MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 201800, HELENA, MT 59620-1800.

Specimens:

APPENDIX 4.

OTHER SPECIES OF SPECIAL CONCERN

SEEN DURING 1995 SURVEYS

Appendix 4. Other species of special concern seen during 1995 surveys

User ID: 71 Mylar No: 22 Point No: 2
Species: ARAAG01030 (SPINY SOFTSHELL)
Source: PNDREI02 Data Type: O (Observation)
Date Observed: 6/15/1995 Map Accuracy: .5 to 5 mil Breeding?: No
County: Blaine Township/Range: 023N017E Section: 22
Location: N. bank of Missouri R. opposite Iron City Islands
Collector/Observer: J. Reichel
Editor Initials: KAJ Last Update: 01/02/1995
Comments: 1 adult seen basking 1" above water line. Carapace ca. 12".

User ID: 41 Mylar No: 1 Point No: 105
Species: ARAAG01030 (SPINY SOFTSHELL)
Source: ONDNHP02 Data Type: O (Observation)
Date Observed: 9/ 3/1995 Map Accuracy: < .5 mile. Breeding?: No
County: Chouteau Township/Range: 027N008E Section: 26
Location: Marias River
Collector/Observer: Tennefoss, L.
Editor Initials: DDD Last Update: 12/29/1995

User ID: 42 Mylar No: 1 Point No: 212
Species: ABNKC22010 (GOLDEN EAGLE)
Source: PNDREI01 Data Type: O (Observation)
Date Observed: 6/13/1995 Map Accuracy: < .5 mile. Breeding?: No
County: Chouteau Township/Range: T23N R14E Section: 10 NW
Location: Below Dark Butte on Missouri River (100 m) up drainage and 50 high on a cliff; easily visible from the river
Collector/Observer: J. Reichel
Editor Initials: DDD Last Update: 10/19/1995
Comments: 1 adult, 2 young seen.

User ID: 42 Mylar No: 1 Point No: 195
Species: ABPBR01030 (LOGGERHEAD SHRIKE)
Source: PNDREI01 Data Type: O (Observation)
Date Observed: 7/18/1995 Map Accuracy: < .5 mile. Breeding?: No
County: Phillips Township/Range: 033N028E Section: 31
Location: N. of Wagner ca. 14 mi.
Collector/Observer: Reichel, J.
Editor Initials: DDD Last Update: 08/01/1995
Comments: Pair on telephone line.

User ID: 42 Mylar No: 1 Point No: 232
Species: ABPBR01030 (LOGGERHEAD SHRIKE)
Source: PNDREI01 Data Type: O (Observation)
Date Observed: 7/15/1995 Map Accuracy: < .5 mile. Breeding?: No
County: Phillips Township/Range: 031N034E Section: 22
Location: S. of Saco on Larb Cr. rd.
Collector/Observer: Reichel, J.
Editor Initials: DDD Last Update: 01/11/1996
Comments: pair

Appendix 4 (cont). Other species of special concern seen during 1995 surveys.

User ID: 42 Mylar No: 2 Point No: 12
Species: ABPBR01030 (LOGGERHEAD SHRIKE)
Source: U95KNO02 Data Type: O (Observation)
Date Observed: 6/ 6/1995 Map Accuracy: < .5 mile. Breeding?: No
County: Phillips Township/Range: 030N029E Section: 27
Location: 482250N 1080023W
Collector/Observer: Knowles, C.
Editor Initials: DDD Last Update: 02/01/1996

User ID: 42 Mylar No: 1 Point No: 196
Species: ABPBR01030 (LOGGERHEAD SHRIKE)
Source: PNDREI01 Data Type: O (Observation)
Date Observed: 7/ 3/1995 Map Accuracy: < .5 mile. Breeding?: No
County: Valley Township/Range: 034N035E Section: 12
Location: Intersection main road at bend and secondary road going west.
Collector/Observer: Reichel, J.
Editor Initials: DDD Last Update: 08/01/1995
Comments: Pair on fence posts 40m apart.

User ID: 42 Mylar No: 1 Point No: 237
Species: ABPBR01030 (LOGGERHEAD SHRIKE)
Source: PNDREI01 Data Type: O (Observation)
Date Observed: 7/15/1995 Map Accuracy: < .5 mile. Breeding?: No
County: Valley Township/Range: Section: 0
Location: Box Elder Coulee crossing of Lark Creek Road
Collector/Observer: Reichel, J.
Editor Initials: DDD Last Update: 01/11/1996
Comments: pair

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: SPEOTYTO CUNICULARIA
Common Name: BURROWING OWL

Global rank: G4 Forest Service status:
State rank: S3B,SZN Federal Status:

Element occurrence code: ABNSB10010.005
Element occurrence type:

Survey site name: NORTH CHINOOK IRRIGATION CANAL
EO rank:
EO rank comments:

County: BLAINE

USGS quadrangle: NORTH CHINOOK RESERVOIR

Township:	Range:	Section:	TRS comments:
035N	018E	35	NE4NE4

Precision: M
Survey date: Elevation: 2578 -
First observation: 1995-06-30 Slope/aspect:
Last observation: 1995-06-30 Size (acres):

Location:
JUST PAST LODGE CREEK, EAST OF CHINOOK, GO NORTH ON PAVED ROAD THAT TURNS TO GRAVEL FOR CA. 12 MILES; TURN LEFT ON GRAVEL ROAD FOR CA. 1.5 MILES; BIRDS WERE ON SOUTH SIDE OF ROAD OPPOSITE ROAD GOING NORTH.

Element occurrence data:
1 PAIR SEEN.

General site description:
OPEN PRAIRIE TO SOUTH, OLD CULTIVATED FIELD TO NORTH. WHITE-TAILED JACKRABBIT ALSO SEEN.

Land owner/manager:
BLM: LEWISTOWN DISTRICT, HAVRE RESOURCE AREA
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:
OBSERVED BY JIM REICHEL.

Information source: REICHEL, JAMES D. [ZOOLOGIST] MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 201800, HELENA, MT 59620-1800. WORK: (406) 444-3009.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: SPEOTYTO CUNICULARIA
Common Name: BURROWING OWL

Global rank: G4 Forest Service status:
State rank: S3B,SZN Federal Status:

Element occurrence code: ABNSB10010.006
Element occurrence type:

Survey site name: COAL CREEK
EO rank:
EO rank comments:

County: BLAINE

USGS quadrangle: TULE LAKE

Township:	Range:	Section:	TRS comments:
034N	020E	10	

Precision: M
Survey date: Elevation: 2820 -
First observation: 1995-07-01 Slope/aspect: - / NW
Last observation: 1995-07-01 Size (acres):

Location:
CA. 9 MILES NORTHEAST OF CHINOOK.

Element occurrence data:
1 ADULT SEEN ENTERING BURROW.

General site description:
IN BADGER HOLE IN SHORTGRASS PRAIRIE CA. 15 METERS FROM EPHEMERAL POND. BURROW ENTRANCE MOUND CONTAINING OWL FEATHERS AND WHITEWASH.

Land owner/manager:
BLM: LEWISTOWN DISTRICT, HAVRE RESOURCE AREA
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:
OBSERVED BY JIM REICHEL.

Information source: REICHEL, JAMES D. [ZOOLOGIST] MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 201800, HELENA, MT 59620-1800. WORK: (406) 444-3009.

Specimens:

April 18, 1996

MONTANA NATURAL HERITAGE PROGRAM
Element Occurrence Record

Scientific Name: HALIAEETUS LEUCOCEPHALUS
Common Name: BALD EAGLE

Global rank: G4 Forest Service status: ENDANGERED
State rank: S3B,S3N Federal Status: LTLE

Element occurrence code: ABNKC10010.186
Element occurrence type:

Survey site name: LITTLE SANDY
EO rank:
EO rank comments: CURRENT

County: CHOUTEAU

USGS quadrangle: VERONA

Township:	Range:	Section:	TRS comments:
026N	012E	3	SW4NE4

Precision: M
Survey date: Elevation: 2520 -
First observation: 1995-06-12 Slope/aspect:
Last observation: 1995-06-12 Size (acres):

Location:
3.5 RIVER MILES BELOW COAL BANKS LANDING RECREATION AREA. NEST IN FIRST OR SECOND TREE 10 METERS FROM MISSOURI RIVER BANK ON UPSTREAM END OF COTTONWOOD GROVE ON RIVER RIGHT.

Element occurrence data:
1 ADULT AT NEST WITH 2 FEATHERED (ALL DARK) JUVENILES.

General site description:
COTTONWOOD TREE BY RIVER BANK.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
UPPER MISSOURI WILD & SCENIC RIVER

Comments:
OBSERVED BY JIM REICHEL.

Information source: FLATH, DENNIS. 1995. [MEMO OF ? OCTOBER SUMMARIZING SURVEY RESULTS FOR THE MONTANA BALD EAGLE WORKING GROUP.] 8PP.

Specimens:

APPENDIX 5

HYDOGRAPH OF THE

MISSOURI RIVER

DURING SURVEYS 10-18 JUNE 1995

Appendix 5. Hydrograph of the Missouri River during surveys 10-18 June 1995.

Discard this page and insert hydrographs